

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION

WALTER KIDDE PORTABLE
EQUIPMENT INC.,

Plaintiff,

CIVIL ACTION FILE

vs.

NO. 6:22-cv-566-ADA-DTG

FIRST ALERT, INC. and
BRK BRANDS, INC.,

Defendants.

~~~~~

DEPOSITION OF  
CHARLES FREDERICK REINHOLTZ, PH.D.

January 6, 2023

10:09 a.m.

21st Floor  
1180 Peachtree Street, NE  
Atlanta, Georgia

S. Julie Friedman, CCR-B-1476

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p style="text-align: right;">Page 2</p> <p>1 APPEARANCES OF COUNSEL</p> <p>2 On behalf of the Plaintiff:</p> <p>3 FISH &amp; RICHARDSON PC</p> <p>4 AAMIR ABDULQADER KAZI, ESQ.</p> <p>5 21st Floor</p> <p>6 1180 Peachtree Street NE</p> <p>7 Atlanta, Georgia 30309</p> <p>8 404.724.2811</p> <p>9 404.892.5002 Fax</p> <p>10 kazi@fr.com</p> <p>11</p> <p>12 On behalf of the Defendants:</p> <p>13 K&amp;L GATES</p> <p>14 BENJAMIN E. WEED, ESQ.</p> <p>15 Suite 3300</p> <p>16 70 West Madison Street</p> <p>17 Chicago, Illinois 60602</p> <p>18 312.781.7166</p> <p>19 benjamin.weed@klgates.com</p> <p>20</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p> <p>25</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <p style="text-align: right;">Page 4</p> <p>1 CHARLES FREDERICK REINHOLTZ, PH.D., having</p> <p>2 been first duly sworn, was examined and</p> <p>3 testified as follows:</p> <p>4 CROSS-EXAMINATION</p> <p>5 BY MR. WEED:</p> <p>6 Q. Good morning, sir.</p> <p>7 A. Good morning.</p> <p>8 Q. Will you please state and spell your full</p> <p>9 name for the record.</p> <p>10 A. It's Charles Frederick Reinholtz. It's</p> <p>11 C-H-A-R-L-E-S, F-R-E-D-E-R-I-C-K, R-E-I-N-H-O-L-T-Z.</p> <p>12 Q. And you are a Ph.D., correct?</p> <p>13 A. Correct.</p> <p>14 Q. Do you prefer Professor Reinholtz or Dr.</p> <p>15 Reinholtz?</p> <p>16 A. I like professor, but either one is okay.</p> <p>17 Q. Great. Would you please let me know what</p> <p>18 your current residential address is.</p> <p>19 A. Yes. It's 236 Quay, Q-U-A-Y, Assisi,</p> <p>20 ASSISI, New, N-E-W, Smyrna, S-M-Y-N-R-A, Beach,</p> <p>21 Florida 32169.</p> <p>22 Q. Okay. And have you been deposed before?</p> <p>23 A. I have.</p> <p>24 Q. Approximately how many times?</p> <p>25 A. Ballpark, 50 or 60.</p>                                             |
| <p style="text-align: right;">Page 3</p> <p>1 INDEX OF EXAMINATIONS</p> <p>2 WITNESS:</p> <p>3 Charles Frederick Reinholtz, Ph.D.</p> <p>4 CROSS-EXAMINATION 4</p> <p>5 By Mr. Weed</p> <p>6 INDEX TO EXHIBITS</p> <p>7 Exhibit Description Page</p> <p>8 Exhibit 1 12-27-22 Declaration of Dr. 12</p> <p>9 Charles Reinholtz in Support of</p> <p>10 Plaintiff's Claim construction</p> <p>11 Exhibit 2 10-17-06 Patent No.: US 7,123,158 12</p> <p>12 B2, Life Safety Alarm with a</p> <p>13 Sealed Battery Power Supply</p> <p>14 Exhibit 3 4-28-09 Patent No.: US 7,525,445 12</p> <p>15 B2, Life Safety Alarm with a</p> <p>16 Sealed Battery Power Supply</p> <p>17 Exhibit 4 Book - "Mechanisms and Dynamics of 33</p> <p>18 Machinery"</p> <p>19 Exhibit 5 Data Sheet for Kidde Sealed 59</p> <p>20 Battery Smoke Alarm with Smart</p> <p>21 Hush, Model 0910</p> <p>22 Exhibit 6 11-26-96 Patent Number: 5,578,996, 70</p> <p>23 LONG LIFE DETECTOR</p> <p>24 (Original Exhibits 1 through 3 and 5 through 6</p> <p>25 have been attached to the original transcript.</p> <p>Exhibit 4 was retained by Benjamin E. Weed, Esq.)</p> | <p style="text-align: right;">Page 5</p> <p>1 Q. Are those depositions all in connection</p> <p>2 with patent matters?</p> <p>3 A. In the last 20 years, I think, probably</p> <p>4 yes. Before that, I did some product liability work.</p> <p>5 Q. Okay. Have all of your depositions been</p> <p>6 as an expert witness of some kind?</p> <p>7 A. Yes.</p> <p>8 Q. Okay. When was the last time you gave a</p> <p>9 deposition?</p> <p>10 A. In the fall. I don't remember the date,</p> <p>11 but I was deposed in the fall.</p> <p>12 Q. The fall of 2022?</p> <p>13 A. Yes. Correct.</p> <p>14 Q. Okay. And did I see correctly on your</p> <p>15 testimony list that you gave some testimony at the</p> <p>16 ITC late last year?</p> <p>17 A. I did. In December.</p> <p>18 Q. Okay. How many times have you given</p> <p>19 testimony at the ITC?</p> <p>20 A. About six or seven.</p> <p>21 Q. Was your testimony at the ITC this last</p> <p>22 time in person in Washington?</p> <p>23 A. It was. Yes.</p> <p>24 Q. And was it one of the cases where you --</p> <p>25 your direct testimony went in as a written statement;</p> |

2 (Pages 2 - 5)

Veritext Legal Solutions

www.veritext.com

888-391-3376

FIRST ALERT & BRK EXHIBIT 1013

Page 2 of 70

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p style="text-align: right;">Page 6</p> <p>1 or did you give live, direct testimony?</p> <p>2 A. No. My direct -- I had a witness</p> <p>3 statement for direct testimony.</p> <p>4 Q. Okay. Have you ever testified in a U.S.</p> <p>5 District Court before?</p> <p>6 A. I have.</p> <p>7 Q. How many times?</p> <p>8 A. About a half a dozen, again, six or seven.</p> <p>9 Q. And from looking at your CV, it looks like</p> <p>10 some of those were in connection with Markman or</p> <p>11 claim construction hearings; is that right?</p> <p>12 A. At least a few. Yes.</p> <p>13 Q. Okay. Have you given testimony in front</p> <p>14 of a jury in a U.S. District Court before?</p> <p>15 A. I have.</p> <p>16 Q. How many times?</p> <p>17 A. Perhaps four.</p> <p>18 And I may be off on these numbers.</p> <p>19 Q. No.</p> <p>20 A. And I've said I testified six times.</p> <p>21 Maybe it was ten. I don't have a count.</p> <p>22 Q. Sure. But it's fair to say that your</p> <p>23 district court testimonial experience covers both</p> <p>24 Markman hearings and jury trials; is that right?</p> <p>25 A. That is correct. True.</p>                                          | <p style="text-align: right;">Page 8</p> <p>1 do with reducing wear and lowering frictional forces</p> <p>2 in the yarn manufacturing process.</p> <p>3 Q. Okay. Did you invent those ideas in</p> <p>4 connection with your academic work or with commercial</p> <p>5 work?</p> <p>6 A. Sometimes it's hard to separate those out.</p> <p>7 Q. Okay. I understand.</p> <p>8 A. But the carpal wrist patent was through --</p> <p>9 I taught at Virginia Tech for 24 years,</p> <p>10 and that was through Virginia Tech intellectual</p> <p>11 properties; and that was work done with students at</p> <p>12 the university.</p> <p>13 The snubber profile -- I've also worked</p> <p>14 quite a bit in industry, and that was when I was on</p> <p>15 assignment at a company called Milliken in South</p> <p>16 Carolina, so that patent was through Milliken.</p> <p>17 Q. Is that M-I-L-L-I-K-E-N?</p> <p>18 A. Yes. That's correct.</p> <p>19 Q. Do you know if the -- if either of the</p> <p>20 patents you are named inventor on have ever been</p> <p>21 litigated before?</p> <p>22 A. They have not, to my knowledge.</p> <p>23 Q. Is it fair to say that you've not given</p> <p>24 testimony as an inventor in connection with the</p> <p>25 assertion of those patents?</p>                                                                                     |
| <p style="text-align: right;">Page 7</p> <p>1 Q. Have you ever testified at a bench trial</p> <p>2 in district court?</p> <p>3 A. I have. Yes.</p> <p>4 Q. Do you know how many times?</p> <p>5 A. Probably four or five.</p> <p>6 Q. Okay. And you mentioned before that you</p> <p>7 had done some testifying early in your career in</p> <p>8 connection with products liability cases, right?</p> <p>9 A. That is correct.</p> <p>10 Q. Is any of the in-court testimony we've</p> <p>11 been talking about product liability cases, or is it</p> <p>12 all patent cases?</p> <p>13 A. I can't recall testifying in court in</p> <p>14 connection with product liability. I don't think</p> <p>15 I've testified.</p> <p>16 Q. Okay. I believe your -- your declaration</p> <p>17 or your CV also mentions you are the inventor on two</p> <p>18 patents; is that right?</p> <p>19 A. That is correct.</p> <p>20 Q. And what is the subject matter of those</p> <p>21 patents?</p> <p>22 A. One patent is a robotic wrist. It's</p> <p>23 called the carpal robotic wrist.</p> <p>24 And the other patent is called a snubber</p> <p>25 profile; and it's a -- S-N-U-B-B-E-R, and it has to</p> | <p style="text-align: right;">Page 9</p> <p>1 A. That's correct.</p> <p>2 Q. And I want to be careful with this next</p> <p>3 couple of questions, because, as you know, I'm not</p> <p>4 entitled to hear conversations you've had with</p> <p>5 attorneys.</p> <p>6 But can you give me at a high level a</p> <p>7 sense for your involvement in the patent prosecution</p> <p>8 process for your patents.</p> <p>9 A. It's been some time ago the -- for both</p> <p>10 patents.</p> <p>11 In the case of the snubber profile with</p> <p>12 Milliken, I drafted the initial disclosure; and I</p> <p>13 drew by hand. I drew the figures that were in the</p> <p>14 patent. They were redrawn by a draftsman later. I</p> <p>15 don't recall the day-to-day involvement. I do know</p> <p>16 that I would periodically receive feedback from the</p> <p>17 attorneys, and I would respond to that.</p> <p>18 And I think a similar situation with the</p> <p>19 carpal wrist patent at Virginia Tech. There, I</p> <p>20 worked with a collection of graduate students, and so</p> <p>21 there was a lot of background work, and they had CAD</p> <p>22 drawings that we produced.</p> <p>23 And it surprised me, but the patent agent</p> <p>24 wanted to reproduce those as hand drawings; and so we</p> <p>25 had to go back and correct some mistakes that were in</p> |

3 (Pages 6 - 9)

Veritext Legal Solutions

www.veritext.com

888-391-3376

FIRST ALERT & BRK EXHIBIT 1013

Page 3 of 70

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p style="text-align: right;">Page 10</p> <p>1 the -- in the hand drawings that weren't in the<br/> 2 original drawing, so we had some involvement in the<br/> 3 day-to-day prosecution of that as well.<br/> 4 (Discussion ensued off the record.)<br/> 5 Q. (By Mr. Weed) All right. Let's talk kind<br/> 6 of as a whole about your expert witness work. Can<br/> 7 you ballpark for me the number of times where you've<br/> 8 worked for a patent owner versus for a party accused<br/> 9 of infringement?<br/> 10 A. I don't catalog that. It is in the<br/> 11 record, so I do keep a record of that, but I don't<br/> 12 have a mental note. And I don't differentiate<br/> 13 between the two. I'm guessing it's roughly 50-50,<br/> 14 but I may be off on that.<br/> 15 Q. Okay. And when you say you have a record,<br/> 16 was that one of the attachments to your declaration<br/> 17 in this case?<br/> 18 A. I -- It's correct that there's an<br/> 19 attachment to my declaration that specifically<br/> 20 describes recent work, so I think it's the last five<br/> 21 years.<br/> 22 Q. Okay.<br/> 23 A. So we could look at that and see what the<br/> 24 split is.<br/> 25 Q. Yeah. Let's do that. Let's do a little</p> | <p style="text-align: right;">Page 12</p> <p>1 Let's mark the declaration as Exhibit 1.<br/> 2 And then let me know what order you mark the<br/> 3 patents in. It doesn't matter to me.<br/> 4 THE WITNESS: Okay.<br/> 5 MR. WEED: Here you go.<br/> 6 THE WITNESS: I'll mark the declaration as<br/> 7 one.<br/> 8 (Exhibit 1 was marked for identification.)<br/> 9 THE WITNESS: And I'll mark the '158<br/> 10 patent as Exhibit 2.<br/> 11 MR. WEED: Okay.<br/> 12 (Exhibit 2 was marked for identification.)<br/> 13 THE WITNESS: And the '445 patent I'll<br/> 14 mark as Exhibit 3.<br/> 15 (Exhibit 3 was marked for identification.)<br/> 16 Q. (By Mr. Weed) All right. So let's --<br/> 17 With that housekeeping, let's go to Exhibit 1,<br/> 18 Deposition Exhibit 1, which also happens to be<br/> 19 Exhibit 1 to the briefing.<br/> 20 And this is your declaration in this case,<br/> 21 correct?<br/> 22 A. Correct.<br/> 23 Q. And if you would just verify for me that<br/> 24 the signature on Page 30 of the declaration is your<br/> 25 signature.</p> |
| <p style="text-align: right;">Page 11</p> <p>1 housekeeping. You have two documents in front of<br/> 2 you, right?<br/> 3 A. I have three documents --<br/> 4 Q. Okay.<br/> 5 A. -- in front of me.<br/> 6 Q. What are those?<br/> 7 A. I have the two patents -- the '158 patent<br/> 8 and the '445 patent; and then I have a copy of my<br/> 9 declaration and the attachments.<br/> 10 Q. Okay. And just for the record, the copy<br/> 11 of the declaration starts with the exhibit slip sheet<br/> 12 that's says Exhibit 2, right?<br/> 13 A. It's called Exhibit 1.<br/> 14 Q. Oh, I'm sorry. Exhibit 1.<br/> 15 Okay. And, again, just for the record,<br/> 16 what you have in front of you has text at the top of<br/> 17 each page that says case 6:22-CV -- et cetera, right?<br/> 18 A. Correct.<br/> 19 Q. Okay. Are there any markings that you've<br/> 20 made to those documents other than printing them out?<br/> 21 A. No.<br/> 22 MR. WEED: Okay. Why don't we go ahead<br/> 23 and mark those three documents as Exhibits 1, 2,<br/> 24 and 3. And you can just do it, if you want,<br/> 25 'cause there's no video.</p>                                                                                                 | <p style="text-align: right;">Page 13</p> <p>1 A. It is. Yes.<br/> 2 Q. Okay. And what we were talking about was<br/> 3 there's an attachment to your declaration that begins<br/> 4 on Court Page 55 of 60, if you use the top of the --<br/> 5 top of the document, right?<br/> 6 A. I'm sorry. I missed it. It's on Page 33<br/> 7 of 60. Is that what you said?<br/> 8 Q. So let's see. The 33 of 60 is the<br/> 9 beginning of your CV, right?<br/> 10 A. Correct.<br/> 11 Q. And then if you go to 55 of 60, is that<br/> 12 the list of recent testimony that you referred to?<br/> 13 A. Yes. That's correct.<br/> 14 Q. Got it.<br/> 15 And you said recent. This document says<br/> 16 2017 to present.<br/> 17 Is that the timeframe for this document?<br/> 18 A. Correct.<br/> 19 Q. And is there a reason why you started in<br/> 20 2017?<br/> 21 A. I think that's usually what I'm asked for,<br/> 22 the last four or five years --<br/> 23 Q. Okay.<br/> 24 A. -- of testimony, and so that's what I<br/> 25 provided here.</p>                            |

4 (Pages 10 - 13)

Veritext Legal Solutions

www.veritext.com

888-391-3376

FIRST ALERT & BRK EXHIBIT 1013

Page 4 of 70

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p style="text-align: right;">Page 14</p> <p>1 Q. Okay. Now on this document, I want to</p> <p>2 just sort of understand the way that it's put</p> <p>3 together. In each of the rows, the fourth column's</p> <p>4 called "Case Information," and then client's shown in</p> <p>5 boldface, right?</p> <p>6 A. Correct.</p> <p>7 Q. So fair to say that whatever company is</p> <p>8 listed in bold in that column is the one you were</p> <p>9 working for?</p> <p>10 A. That should be correct. Yes.</p> <p>11 Q. And maybe this is too much of a level of</p> <p>12 detail. But do you know if any of the cases that you</p> <p>13 worked on were declaratory judgment cases where the</p> <p>14 plaintiff was actually the accused infringer?</p> <p>15 A. Yes. That did happen in -- I think only</p> <p>16 once.</p> <p>17 Q. Okay. Do you know which one?</p> <p>18 A. Yes. And I'm -- I'll qualify all this by</p> <p>19 saying that those are things that I tend not to</p> <p>20 make -- They're probably more important to an</p> <p>21 attorney --</p> <p>22 Q. Understood. Understood.</p> <p>23 A. -- than to me so; but the case, that</p> <p>24 particular case, you'll see on the -- Page 59.</p> <p>25 Q. Okay.</p> | <p style="text-align: right;">Page 16</p> <p>1 A. -- took place.</p> <p>2 Q. I see. Got it.</p> <p>3 And in the second column from the left,</p> <p>4 you list the -- You list what you called counsel,</p> <p>5 right?</p> <p>6 A. Correct.</p> <p>7 Q. So that's the lawyers that you were</p> <p>8 working with, right?</p> <p>9 A. That's correct.</p> <p>10 Q. And in that case, the Belanger case, you</p> <p>11 were working with the Fish &amp; Richardson firm, right?</p> <p>12 A. That's correct.</p> <p>13 Q. And you've worked with the Fish firm, by</p> <p>14 my count, eight times at least in situations where</p> <p>15 you gave testimony in the last five years; is that</p> <p>16 right?</p> <p>17 A. I think there were four separate cases;</p> <p>18 but, of course, there were, in some cases, multiple</p> <p>19 depositions and in-court testimony, so I think there</p> <p>20 were four instances here where I -- cases where I</p> <p>21 worked with Fish &amp; Richardson.</p> <p>22 Q. Okay. So Fish &amp; Richardson lawyers</p> <p>23 defended your testimony, whether it be in a</p> <p>24 deposition or in court, eight times, spanning four</p> <p>25 cases in the last five years, right?</p>                   |
| <p style="text-align: right;">Page 15</p> <p>1 A. It was the Wash World versus Belanger</p> <p>2 case.</p> <p>3 Q. Okay.</p> <p>4 A. And so in that case, Belanger was the</p> <p>5 patent owner.</p> <p>6 Q. Okay. And in that case, it says Court</p> <p>7 Testimony, August 2 and 3, right?</p> <p>8 A. That's correct.</p> <p>9 Q. And the case began in 20 -- Well, at</p> <p>10 least your engagement began in 2022, it looks like,</p> <p>11 right?</p> <p>12 A. That's correct. And the --</p> <p>13 Well, no. Let me clarify. The last</p> <p>14 column, which has court testimony August 2nd and 3rd,</p> <p>15 it should say 2022.</p> <p>16 Q. Right.</p> <p>17 A. I just omitted that.</p> <p>18 Q. Okay.</p> <p>19 A. My involvement in the case began, I think,</p> <p>20 in 2021.</p> <p>21 Q. Okay. So what -- By putting the year</p> <p>22 2022 in the leftmost column for that row, what were</p> <p>23 you intending to convey?</p> <p>24 A. This is when the testimony --</p> <p>25 Q. I see.</p>                                                                                                                                                                                                                | <p style="text-align: right;">Page 17</p> <p>1 A. That may be a legal question. I'm not</p> <p>2 sure I get defended in court. In a deposition, I</p> <p>3 know that's the terminology that's used. In court, I</p> <p>4 guess that's correct. I don't know.</p> <p>5 Q. Okay. Have you ever worked with the</p> <p>6 lawyers that you're working with on this case in any</p> <p>7 of the cases that are listed on your CV?</p> <p>8 A. Yes. So Michael Autuoro is involved in</p> <p>9 this case and was also involved in the Floodbreak</p> <p>10 case that's listed in this prior testimony.</p> <p>11 Q. Okay. Any others that you know of?</p> <p>12 A. No.</p> <p>13 Q. You can look at, if you want to, at the</p> <p>14 front page of your declaration; and you'll see the</p> <p>15 parties in this case. The plaintiff is Walter Kidde</p> <p>16 Portable Equipment Inc.</p> <p>17 Do you see that?</p> <p>18 A. I do. Yes.</p> <p>19 Q. And have you ever done work for what we've</p> <p>20 referred to as Kidde before?</p> <p>21 A. No.</p> <p>22 Q. Have you done work for Carrier Corporation</p> <p>23 before?</p> <p>24 A. Not in a -- Certainly not in a litigation</p> <p>25 capacity. I may have had some involvement with</p> |

5 (Pages 14 - 17)

Veritext Legal Solutions

www.veritext.com

888-391-3376

FIRST ALERT & BRK EXHIBIT 1013

Page 5 of 70

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p style="text-align: right;">Page 18</p> <p>1 Carrier in my academic work, but I can't recall. I<br/> 2 have to look at my resume to see. They may have<br/> 3 funded a project --<br/> 4 Q. Okay.<br/> 5 A. -- along the way.<br/> 6 Q. Have you ever been adverse in litigation<br/> 7 to either Kidde or Carrier?<br/> 8 A. No.<br/> 9 Q. Have you ever worked for or against ETC<br/> 10 United Technologies?<br/> 11 A. No.<br/> 12 Q. Have you ever worked for or against First<br/> 13 Alert or BRK Brands?<br/> 14 A. No.<br/> 15 Q. Have you ever worked for or against<br/> 16 Resideo Corporation?<br/> 17 A. No.<br/> 18 Q. Have you ever worked for or against<br/> 19 Honeywell International, I think?<br/> 20 A. No. Not to my recollection.<br/> 21 Q. Has any of your work whether in litigation<br/> 22 or in nonlitigation, I guess, involved worked with<br/> 23 Underwriters Labs.<br/> 24 A. Underwriters Labs is a standards agency<br/> 25 that I deal with in other capacities, but I've never</p>                                                                                                                                                                                              | <p style="text-align: right;">Page 20</p> <p>1 Q. Okay. And you said probably both. Are<br/> 2 you thinking of something that you've seen in this<br/> 3 case that let's you know that UL standards are<br/> 4 relevant?<br/> 5 A. Oh, I've certainly seen it in this case.<br/> 6 Yes. The alarms that I've looked at, the products<br/> 7 do -- are generally covered, I believe, by UL<br/> 8 standards.<br/> 9 Q. Okay. So you have looked at the products<br/> 10 in this case?<br/> 11 A. I have looked at the number of different<br/> 12 products; and as I started working on this case, I<br/> 13 looked at alarms that I have, so yes.<br/> 14 Q. Okay. When did you start working on this<br/> 15 case?<br/> 16 A. My retention letter -- So when I signed a<br/> 17 formal agreement was December, early in December, the<br/> 18 5th or 6th or 7th, about a month ago.<br/> 19 Q. Okay.<br/> 20 A. But before I signed that agreement, I was<br/> 21 given information about the case; and I considered<br/> 22 whether it would be something that I wanted to work<br/> 23 on and was appropriate for my expertise.<br/> 24 So I had reviewed the patents, and I think<br/> 25 I had reviewed the complaint by the time I actually</p> |
| <p style="text-align: right;">Page 19</p> <p>1 worked directly with Underwriters Labs.<br/> 2 Q. What do you mean when you say you work<br/> 3 with them in other capacities?<br/> 4 A. Well, their standards sometimes are<br/> 5 governing standards or at least recommended standards<br/> 6 for manufacture of a number of electronic-related<br/> 7 products.<br/> 8 Q. Okay. So you have consumed their<br/> 9 standards, but you have not spoken with them<br/> 10 directly; is that fair?<br/> 11 A. I can't say for certain that I've never<br/> 12 spoken, but I am a user of the standards.<br/> 13 I have not, Underwriters Labs, worked on<br/> 14 any of their standards.<br/> 15 Q. Okay. Do you know if the products that<br/> 16 are at issue in this case are governed by UL<br/> 17 standards?<br/> 18 A. I do know there are UL standards that<br/> 19 apply to the products.<br/> 20 Q. And do you know that from your work in the<br/> 21 case or from being a user of smoke alarms?<br/> 22 A. Probably both. The smoke alarms that I'm<br/> 23 familiar with, I think, generally carry a UL symbol<br/> 24 on them or a UL standard designation, at least one UL<br/> 25 standard designation.</p> | <p style="text-align: right;">Page 21</p> <p>1 was engaged.<br/> 2 Q. And do you know how much before you were<br/> 3 formally engaged that you were given that information<br/> 4 about the case?<br/> 5 A. Oh, a couple of weeks maybe.<br/> 6 Q. So it was the fall of '22, right?<br/> 7 A. Oh, yes. Yeah. So I think I probably<br/> 8 began reviewing material in November of this year.<br/> 9 Not this year.<br/> 10 Q. Not anymore.<br/> 11 A. November of 2022. But my memory is not<br/> 12 crisp on that.<br/> 13 Q. Right. Sometimes, you know, more major<br/> 14 events as a time post can be helpful. It looks like<br/> 15 you gave some testimony in court in Missouri October<br/> 16 25th and 26th of 2022?<br/> 17 A. That's correct.<br/> 18 Q. Do you know if you were beginning to<br/> 19 review materials after that testimony?<br/> 20 A. Yes. It was after that testimony.<br/> 21 Q. Okay. All right. So let's talk about --<br/> 22 Well, if you go to Paragraph 20 of your<br/> 23 declaration, which is on Page 7. It flows over into<br/> 24 the next page, too.<br/> 25 A. Okay. I'm with you.</p>                                                                                                                  |

6 (Pages 18 - 21)

Veritext Legal Solutions

www.veritext.com

888-391-3376

FIRST ALERT & BRK EXHIBIT 1013

Page 6 of 70

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p style="text-align: right;">Page 22</p> <p>1 Q. So you list here, I think, the materials<br/>2 considered for the preparation of this declaration,<br/>3 right?<br/>4 A. Yes.<br/>5 Q. And the bullet points on the next page, on<br/>6 Page 8, are the actual physical materials that you<br/>7 reviewed, right?<br/>8 A. Yes. I think the prosecution history --<br/>9 Well, I'm certain the prosecution<br/>10 histories I reviewed electronic copies of those, and<br/>11 not the physical --<br/>12 Q. Uh-huh.<br/>13 A. -- copy.<br/>14 Q. Yes. Let me ask a better question. I<br/>15 didn't intend it -- I didn't intend to hold you to<br/>16 paper versus electronic.<br/>17 The materials in the bullet points are the<br/>18 sort of case-specific things you reviewed here<br/>19 outside of what you list in the body of 20, which is<br/>20 more like your vast prior experience, right?<br/>21 A. I think that's correct, so I've listed it.<br/>22 The last bullet, of course, says material cited<br/>23 herein.<br/>24 Q. Right. Okay. And it's your testimony<br/>25 that you reviewed not only the patents themselves,</p>                                                                                  | <p style="text-align: right;">Page 24</p> <p>1 Q. You didn't speak with the -- Well, did<br/>2 you speak with the prosecuting attorneys at<br/>3 Merchant &amp; Gould?<br/>4 A. No.<br/>5 Q. You mention in the third bullet point on<br/>6 Page 8 Dr. Pratt's declaration?<br/>7 A. Yes.<br/>8 Q. And that's Dr. John Pratt, the expert for<br/>9 the defendants, right?<br/>10 A. That's correct. His declaration and,<br/>11 also, his deposition testimony.<br/>12 Q. Right, right. Do you know Dr. Pratt<br/>13 outside of responding to his declaration in this<br/>14 case?<br/>15 A. I don't believe so.<br/>16 Q. And then you said that you've also looked<br/>17 at various smoke alarm products in connection with<br/>18 this case, right?<br/>19 A. I have. Yes.<br/>20 Q. And did you do that before you signed your<br/>21 formal engagement agreement?<br/>22 A. I definitely looked at some alarms before.<br/>23 I have not studied any of them in detail<br/>24 or formed opinions, but I have looked at a number of<br/>25 alarms.</p>                                                                                                                                                                                                                           |
| <p style="text-align: right;">Page 23</p> <p>1 which are Exhibits 2 and 3, but, also, the references<br/>2 cited on the faces of those patents, correct?<br/>3 A. Yes. I reviewed at least the ones that<br/>4 the examiner considered and commented on, so, for<br/>5 example, Watson was one. Meier, M-E-I-E-R, was one.<br/>6 Some of the others, I have not. I have<br/>7 not reviewed at least in any detail. Some, I may<br/>8 have downloaded and looked at; but I didn't review<br/>9 all those in detail.<br/>10 Q. Okay. Did you look at the provisional<br/>11 application listed on the face of Exhibits 2 and 3?<br/>12 A. I don't recall. I think that I did, but I<br/>13 don't recall specifically.<br/>14 Q. Did you look at any of the foreign<br/>15 counterparts to the patents that are marked as<br/>16 Exhibits 2 and 3?<br/>17 A. I do not recall looking at the foreign<br/>18 counterparts.<br/>19 Q. Did you speak with anybody that wasn't a<br/>20 lawyer to prepare for offering the declaration that<br/>21 we've marked as Deposition Exhibit 1?<br/>22 A. Not to my recollection.<br/>23 Q. You didn't speak to the inventors of the<br/>24 patents-in-suit, right?<br/>25 A. That's correct.</p> | <p style="text-align: right;">Page 25</p> <p>1 Q. And do you know if the alarms that you<br/>2 looked at were alarms attributable to the defendants<br/>3 or to the plaintiff or to somebody else?<br/>4 A. All three.<br/>5 Q. Okay.<br/>6 A. To both plaintiff, defendant, and other.<br/>7 And there may be some connections that I<br/>8 do not know about, but I have a smoke --<br/>9 I have alarms in my recreational vehicle<br/>10 that I've had to deal with recently, and one of those<br/>11 is made by a manufacturer. It's a propane and carbon<br/>12 monoxide sensor that I installed recently; and it's<br/>13 branded as Safety Alert, I think, or something to<br/>14 that effect; and I don't think that is a product made<br/>15 by either of the parties in this case. But it may be<br/>16 a subsidiary, so I'm just not sure about that.<br/>17 Q. And do you know if the products that you<br/>18 looked at in this case are products that are accused<br/>19 of infringement?<br/>20 A. I'm not certain about that. I think so,<br/>21 but I'm not certain.<br/>22 Q. Okay. Do you know if the products that<br/>23 you looked at in this case are products that the<br/>24 plaintiff marks with the patents that we marked as<br/>25 Exhibits 2 and 3?</p> |

7 (Pages 22 - 25)

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p style="text-align: right;">Page 26</p> <p>1 A. I don't recall looking at the patent<br/>2 markings on the products.<br/>3 Q. Was it your understanding that all of the<br/>4 products that you looked at for your work in this<br/>5 case allegedly practice the patents marked as<br/>6 Exhibits 2 and 3?<br/>7 A. I don't think I've come to that<br/>8 conclusion. I don't know.<br/>9 Q. Is it fair to say that your review of the<br/>10 products didn't affect the opinions you gave in your<br/>11 declaration?<br/>12 A. Yes. I think that's correct. It helped<br/>13 to form, I think, a broader understanding; but it<br/>14 didn't affect the opinions.<br/>15 Q. Okay. You mentioned that you reviewed the<br/>16 complaint in this case. Was that sort of pre-formal<br/>17 engagement?<br/>18 A. I believe it was. Yes.<br/>19 Q. Have you reviewed any of Kidde's<br/>20 infringement contentions in this case?<br/>21 A. Well, the complaint, as I recall, had<br/>22 attachments for a subsection that was a claim chart<br/>23 for at least some of the claims and some of the<br/>24 products; and I did review that early on. I don't<br/>25 remember the details of it.</p> | <p style="text-align: right;">Page 28</p> <p>1 A. And I did not look specifically at art<br/>2 that was before the priority date.<br/>3 Q. Okay. You mentioned before the Watson<br/>4 reference. Remember that?<br/>5 A. Correct. Yes.<br/>6 Q. Is it your understanding that that<br/>7 reference is a patent owned by the defendants?<br/>8 A. That's my understanding. Yes.<br/>9 Q. Did you look at any products that embody<br/>10 the Watson patent?<br/>11 A. I don't know.<br/>12 Q. Are you familiar with the MPEP?<br/>13 A. Yes. Generally.<br/>14 Q. What is the MPEP?<br/>15 A. It's the manual that patent examiners use,<br/>16 so it's the guide. That's my understanding. I'm not<br/>17 a legal expert or a patent examiner, but my<br/>18 understanding is it's the guide that patent examiners<br/>19 use.<br/>20 Q. And did you review any parts of the MPEP<br/>21 to prepare for your declaration?<br/>22 A. I don't recall specifically focusing on<br/>23 any of that. It's -- It is material that I do<br/>24 reference occasionally; but with regard to this case,<br/>25 I can't recall.</p>                        |
| <p style="text-align: right;">Page 27</p> <p>1 Q. Okay. Can you recall if you looked at any<br/>2 of the invalidity contentions that were offered by<br/>3 the defendants in this case?<br/>4 A. I don't recall seeing those.<br/>5 Q. So is it fair to say that the only prior<br/>6 art you've considered or reviewed at this point is<br/>7 the prior art cited on the face of the<br/>8 patents-in-suit?<br/>9 A. I looked more broadly. When I was<br/>10 considering taking the case --<br/>11 Q. Uh-huh.<br/>12 A. -- I did a global patent search and looked<br/>13 at patents, other patents related to safety alarms,<br/>14 so I do have, I think, a little broader understanding<br/>15 of the technology that's been patented; but I didn't<br/>16 study that in detail.<br/>17 I think my focus really was on what's<br/>18 listed here in the -- in my declaration.<br/>19 Q. Sure. And is it fair to say that the<br/>20 Google patent search you did wasn't a prior art only<br/>21 search? In other words, it was only date agnostic;<br/>22 or was it for prior art?<br/>23 A. I don't recall, but I think I just looked<br/>24 broadly at smoke alarms.<br/>25 Q. Yeah.</p>      | <p style="text-align: right;">Page 29</p> <p>1 Q. Okay. Do you recall reviewing any court<br/>2 opinions as part of your work on the declaration?<br/>3 A. No. I don't recall that.<br/>4 Q. So is it fair to say that the legal<br/>5 standards that you provide in Section 4, which begin<br/>6 on Page 10, were all provided to you by the Fish<br/>7 firm?<br/>8 A. That's correct. Yes.<br/>9 Q. You talk in your declaration about -- A<br/>10 couple times, you talk about a textbook that you're<br/>11 the coauthor of?<br/>12 A. Yes. That's correct.<br/>13 Q. So, for example, on Page 6, Paragraph 16,<br/>14 you referenced a book called the "Mechanisms and<br/>15 Dynamics of Machinery," right?<br/>16 A. That's correct.<br/>17 Q. And that's a college textbook of some<br/>18 kind?<br/>19 A. It is. It's a textbook that's used in<br/>20 mechanical engineering typically at the junior,<br/>21 senior, and graduate level for instruction.<br/>22 Q. Okay.<br/>23 A. And it's a reference book as well.<br/>24 Q. And I think maybe it's in your CV, but I<br/>25 think I've seen the most recent version of that is</p> |

8 (Pages 26 - 29)

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p style="text-align: right;">Page 30</p> <p>1 Version 4; is that right?</p> <p>2 A. The fourth. It's a fourth edition.</p> <p>3 Q. All right.</p> <p>4 A. That's correct. And there are multiple</p> <p>5 printings, and there are some minor changes from</p> <p>6 printing to printing. There are typos that the</p> <p>7 publisher corrects those, so that's happened a few</p> <p>8 times.</p> <p>9 Q. Okay. And you are a coauthor of this</p> <p>10 book, right?</p> <p>11 A. That's correct.</p> <p>12 Q. Who is the other author?</p> <p>13 A. Hamilton Mabie was a colleague. He's</p> <p>14 deceased now, but he was a colleague at Virginia</p> <p>15 Tech.</p> <p>16 Q. Okay. And was Mr. Mabie, the original</p> <p>17 author or the coauthors on all four editions?</p> <p>18 A. No. Dr. Mabie was the original author of</p> <p>19 the first edition with another colleague of his from</p> <p>20 Cornell named Ocvirk, and I think it's O-C-V-I-R-K,</p> <p>21 so the earlier editions were coauthored with Fred</p> <p>22 Ocvirk.</p> <p>23 And then I came in as the coauthor for the</p> <p>24 fourth edition.</p> <p>25 Q. Okay. So the fourth edition was the first</p>                                                                                                                      | <p style="text-align: right;">Page 32</p> <p>1 combination of rigid or resistant bodies so formed</p> <p>2 and connected that they move upon each other with</p> <p>3 definite relative motion."</p> <p>4 Right?</p> <p>5 A. Correct.</p> <p>6 Q. Do you know if that text predates the</p> <p>7 fourth edition of the book?</p> <p>8 A. I don't.</p> <p>9 Q. Is there a reason in your mind or is there</p> <p>10 a time in your mind where that text does not describe</p> <p>11 the mechanism in your mind?</p> <p>12 A. I don't understand your question.</p> <p>13 Q. So is there a point in time where this</p> <p>14 became an accurate description; and prior to that</p> <p>15 time, it was an inaccurate description?</p> <p>16 A. No. I think in mechanical arts, a</p> <p>17 mechanism has long been understood to comport with</p> <p>18 this definition. You may change the words a little,</p> <p>19 but this is generally what somebody maybe even a</p> <p>20 hundred years ago would have understood to be a</p> <p>21 mechanism in the mechanical arts.</p> <p>22 Q. Okay. And I'm just asking, because this</p> <p>23 is a book -- This is a revision of a book that was,</p> <p>24 to my understanding, originally published decades</p> <p>25 ago, right?</p> |
| <p style="text-align: right;">Page 31</p> <p>1 time that you were a coauthor of this textbook,</p> <p>2 right?</p> <p>3 A. That's correct.</p> <p>4 Q. And can you characterize for me what your</p> <p>5 contributions were in the fourth edition?</p> <p>6 A. Generally, they -- It was an extensive</p> <p>7 revision and updating of the text.</p> <p>8 So the earlier versions were developed</p> <p>9 prior to a lot of the computer-aided design tools</p> <p>10 that are -- were available when I came on as</p> <p>11 coauthor; and so I worked with students to generate</p> <p>12 software that executed a number of the algorithms</p> <p>13 that were described in the text, and it was</p> <p>14 significant rewrites.</p> <p>15 I offered a couple of new chapters on</p> <p>16 spatial mechanisms and robotics and made significant</p> <p>17 edits to other portions, and then there's just a lot</p> <p>18 of tedious work in writing a textbook and doing the</p> <p>19 editing and proofing of it.</p> <p>20 Q. Okay. If you would, go to Paragraph 62 of</p> <p>21 your declaration, please.</p> <p>22 A. Okay.</p> <p>23 Q. And here, the first sentence says, "My own</p> <p>24 textbook on Mechanisms," capital M, "defines the</p> <p>25 term," lower case, "mechanism as," quote, "a</p> | <p style="text-align: right;">Page 33</p> <p>1 A. Well, yeah. Even the edition that I'm</p> <p>2 coauthor on was published several decades ago --</p> <p>3 Q. Right.</p> <p>4 A. -- at this point.</p> <p>5 But yes. The original version was</p> <p>6 published first in the 19 -- early 1960s, I believe,</p> <p>7 so I don't know whether this --</p> <p>8 I think what you're getting at is this</p> <p>9 definition in those earlier editions, and I'm just</p> <p>10 not sure if this is something that I added or was in</p> <p>11 the earlier editions.</p> <p>12 Q. Okay.</p> <p>13 MR. WEED: I'm going to actually mark the</p> <p>14 book. I was only able to get one copy of it,</p> <p>15 but we'll call --</p> <p>16 What are we on, Exhibit 4?</p> <p>17 THE COURT REPORTER: Yeah.</p> <p>18 (Exhibit 4 was marked for identification.)</p> <p>19 Q. (By Mr. Weed) So this might be a little</p> <p>20 bit of handing back and forth, but I've got it opened</p> <p>21 to the copyright page.</p> <p>22 First of all, if you would, just verify</p> <p>23 that that's the fourth edition.</p> <p>24 MR. KAZI: Do you mind if I look over his</p> <p>25 shoulder when you start asking questions --</p>                                                               |

9 (Pages 30 - 33)

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p style="text-align: right;">Page 34</p> <p>1 MR. WEED: Sure.</p> <p>2 MR. KAZI: -- about copyright dates?</p> <p>3 MR. WEED: Yeah.</p> <p>4 MR. KAZI: And you're asking him over</p> <p>5 here. Okay.</p> <p>6 THE WITNESS: Yes. So the copyright,</p> <p>7 1957. That was the original edition, and then</p> <p>8 you see the subsequent editions.</p> <p>9 Q. (By Mr. Weed) Okay.</p> <p>10 A. That's correct.</p> <p>11 Q. And so from that page, can you tell when</p> <p>12 this printing actually occurred?</p> <p>13 A. Yeah. This is the -- I think the way you</p> <p>14 read this, at the very bottom of that page, the</p> <p>15 copyright page, it says printed in the United States.</p> <p>16 And then there are a sequence of numbers 30, 29, 28,</p> <p>17 down to 21. I think -- I knew this at one time, but</p> <p>18 I think this indicates this is the twenty-first</p> <p>19 printing of the fourth edition.</p> <p>20 Q. Okay. And I assume you don't know, but</p> <p>21 any idea when that printing would have occurred?</p> <p>22 A. I don't know.</p> <p>23 Q. And is it your testimony, though, that</p> <p>24 those different printings, to the extent there are</p> <p>25 differences was minor typographical type changes?</p> | <p style="text-align: right;">Page 36</p> <p>1 mechanism from Section 1.2.</p> <p>2 Q. Okay. If you would go back over to Page</p> <p>3 1.</p> <p>4 A. Okay.</p> <p>5 Q. And on Page 1, you should see Chapter 1,</p> <p>6 Introduction at the top, right?</p> <p>7 A. I do. Yes.</p> <p>8 Q. And then one -- Section 1.1 is called,</p> <p>9 "INTRODUCTION TO THE STUDY OF MECHANISMS," right?</p> <p>10 A. Correct.</p> <p>11 Q. And then there in italics on the third</p> <p>12 line attached, it says, quote, mechanisms may be</p> <p>13 defined as that division of machine design which is</p> <p>14 concerned with the kinematic design of linkages,</p> <p>15 cams, gears, and gear trains.</p> <p>16 Right?</p> <p>17 A. That's correct.</p> <p>18 Q. Is there a reason why you didn't include</p> <p>19 that definition and, instead, included the one in</p> <p>20 Section 1.2 in your report?</p> <p>21 A. The definition in Section 1.29 is really</p> <p>22 definitional of what a person of skill in the art or</p> <p>23 in this field would understand to be a mechanism.</p> <p>24 The introductory sentence is really a --</p> <p>25 communicating to the reader, to the student what --</p> |
| <p style="text-align: right;">Page 35</p> <p>1 A. Right. The -- That's correct.</p> <p>2 The differences in the fourth edition in</p> <p>3 the printings -- The only differences occurred in</p> <p>4 the earliest printings, the first several; and they</p> <p>5 were corrections of typographical errors.</p> <p>6 Q. Got it. Okay. If you would, go to --</p> <p>7 So in Paragraph 62 of your declaration,</p> <p>8 you cite to Section 1.2 -- Chapter 1, Section 1.2.</p> <p>9 A. That's correct.</p> <p>10 Q. If you'd go to that page for me.</p> <p>11 MR. WEED: And, Aamir, if you want to take</p> <p>12 a look. I mean --</p> <p>13 MR. KAZI: Yeah.</p> <p>14 MR. WEED: -- you don't have to rush. You</p> <p>15 can certainly hand it over.</p> <p>16 THE WITNESS: Okay. I'm with you.</p> <p>17 Q. (By Mr. Weed) I believe it's on Page 5,</p> <p>18 correct?</p> <p>19 A. That's correct.</p> <p>20 Q. And is it true that the text you took from</p> <p>21 the book and included in your report is the second</p> <p>22 paragraph under the Heading 1.2, which is,</p> <p>23 "MECHANISM," comma, "MACHINE"?</p> <p>24 A. That -- That's correct. Yeah. My</p> <p>25 declaration, I think, quotes the definition of</p>                           | <p style="text-align: right;">Page 37</p> <p>1 that this is a subset of the broader area of machine</p> <p>2 design within the mechanical arts, so it's really</p> <p>3 giving a high-level view of the kinds of topics that</p> <p>4 will be covered in the textbook.</p> <p>5 There's more than that, but that gives a</p> <p>6 high-level view.</p> <p>7 Q. Okay. In the first chapter of the book,</p> <p>8 there is several figures, correct?</p> <p>9 A. Yes. There are a number of figures.</p> <p>10 Q. And if you would look on Page 1, that</p> <p>11 first figure is labeled as Figure 1.1, right?</p> <p>12 A. Correct.</p> <p>13 Q. And that's called slider crank mechanism?</p> <p>14 A. That's correct.</p> <p>15 Q. So that's an example of a mechanism?</p> <p>16 A. It is. Yes.</p> <p>17 Q. And then if you would just confirm for me</p> <p>18 that at least Figures 1.1 through 1.12 are all</p> <p>19 different examples of mechanisms.</p> <p>20 A. Okay. So through 1 point --</p> <p>21 Q. 12.</p> <p>22 A. -- 12.</p> <p>23 Q. Yeah.</p> <p>24 A. I would say -- and I'll note this is</p> <p>25 probably a used textbook, because there are some</p>                                  |

10 (Pages 34 - 37)

Veritext Legal Solutions

www.veritext.com

888-391-3376

FIRST ALERT & BRK EXHIBIT 1013

Page 10 of 70

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p style="text-align: right;">Page 38</p> <p>1 markings in this. I don't think they'll affect our<br/> 2 discussion, but just for the record.<br/> 3 So Figure -- Most of them, I would<br/> 4 describe as examples of the -- at least the kinematic<br/> 5 structure of a mechanism.<br/> 6 Figure 1.2a is a complete engine shown in<br/> 7 a cross-sectional view, so that -- Probably I would<br/> 8 say that's more of a complete machine, and then below<br/> 9 is an example of one of the mechanisms that's found<br/> 10 in that engine. So that's a Chevrolet V8 engine.<br/> 11 And Figure 1.2b shows the slider crank<br/> 12 mechanism that forms part of that engine. There are<br/> 13 a number of mechanisms that are in the engine, so I<br/> 14 think it wouldn't be incorrect to say that it -- the<br/> 15 whole thing could be considered a mechanism of sorts,<br/> 16 but we're really focused on the kinematic structure<br/> 17 here.<br/> 18 And then the later figure, so going to<br/> 19 Figure 1.10 --<br/> 20 Q. Uh-huh.<br/> 21 A. -- and 1.11, those are examples of the<br/> 22 types of what we refer to as binary -- I'm sorry. I<br/> 23 said that incorrectly. Links with lower pair joints,<br/> 24 revolute joints that you might find in a mechanism.<br/> 25 Q. But they wouldn't, in your mind, be</p> | <p style="text-align: right;">Page 40</p> <p>1 the road, but it still has linkages in it; and so we<br/> 2 would consider the chassis of the car or the frame of<br/> 3 the car as the reference link. That would be like<br/> 4 Link 1, and then you see the three links that move<br/> 5 relative to that.<br/> 6 The figure, in particular, is being used<br/> 7 to develop a velocity ratio equation, so the velocity<br/> 8 between the Input Link 2 and the Output Link 4, so<br/> 9 that's Figure 1.13.<br/> 10 And let me pause and see. Did I answer<br/> 11 your question?<br/> 12 Q. Yeah. I just -- My question, my real<br/> 13 question is: Would you consider that to be an<br/> 14 example of a mechanism?<br/> 15 A. I would.<br/> 16 Q. Okay.<br/> 17 A. Yes.<br/> 18 Q. How about 1.14? What is shown in 1.14?<br/> 19 A. Figure 1.14 is a -- An example of a belt<br/> 20 or a chain drive with two sprockets or pulleys of<br/> 21 different diameter and how to calculate the velocity<br/> 22 ratio between those.<br/> 23 Q. Would you consider that to be an example<br/> 24 of a mechanism?<br/> 25 A. I would. Yes.</p>                             |
| <p style="text-align: right;">Page 39</p> <p>1 mechanisms in and of themselves?<br/> 2 A. I wouldn't call a single link that's<br/> 3 divorced from any connections or interaction with any<br/> 4 other links. I wouldn't call a single link a<br/> 5 mechanism. I think you need at least two links.<br/> 6 Other people may disagree on that point,<br/> 7 but I think a link normally would not be considered a<br/> 8 mechanism in itself. It's part of a mechanism.<br/> 9 Q. Okay. And then if you would, look at<br/> 10 Figures 1.13 and 1.14.<br/> 11 I'm certainly no expert. But can you<br/> 12 describe for me what those are.<br/> 13 A. Yes. I'm happy to.<br/> 14 So Figure 1.3 and Figure 1.4, those --<br/> 15 Q. I apologize. Just to make sure we're<br/> 16 talking about the same thing -- 1.13 and 1.14.<br/> 17 A. My apologies. You said it correctly, and<br/> 18 I looked at the wrong image. Sure.<br/> 19 So Figure 1.13 is an example of what is<br/> 20 referred to as a four-bar linkage, and you can see<br/> 21 the links are numbered as one being the ground.<br/> 22 Usually, there's a link that's at least for analysis<br/> 23 purposes considered to be the ground. It may be<br/> 24 actually physically moving relative to the earth.<br/> 25 Like the engine in a car is moving down</p>             | <p style="text-align: right;">Page 41</p> <p>1 Q. Would it be fair to say that there are<br/> 2 dozens of examples of mechanisms throughout that<br/> 3 book?<br/> 4 A. There are a number of different<br/> 5 mechanisms. There -- There's a lot of overlap.<br/> 6 So if you look at many of the mechanisms<br/> 7 are four-bar linkages or variations on what we refer<br/> 8 to as inversions of four-bar linkages or cam follower<br/> 9 mechanisms; but there are other examples of different<br/> 10 kinds of mechanisms as well.<br/> 11 Q. Okay. Could I see real quick in the book.<br/> 12 A. Of course.<br/> 13 Q. All right. I hand it back to you.<br/> 14 I'd like to talk a little bit about the<br/> 15 table of contents, which starts at Roman numeral vii.<br/> 16 A. Okay.<br/> 17 THE WITNESS: See?<br/> 18 MR. KAZI: Uh-huh.<br/> 19 Q. (By Mr. Weed) So we were looking at<br/> 20 Chapter 1 a little bit just a moment ago. Chapter 2<br/> 21 is titled, "Linkages and Mechanisms," right?<br/> 22 A. It is. Yes.<br/> 23 Q. Is there a difference between a linkage<br/> 24 and a mechanism?<br/> 25 A. A linkage is a type of mechanism, so the</p> |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p style="text-align: right;">Page 42</p> <p>1 word "mechanisms" is broader than linkages.</p> <p>2 Q. Okay. If you would, go over to Chapter 3;</p> <p>3 and, again, feel free to look in the chapters, if you</p> <p>4 want to. I just think this might be an easier way to</p> <p>5 go about it.</p> <p>6 But the title of Chapter 3 is called,</p> <p>7 "Cams," right?</p> <p>8 A. Yes.</p> <p>9 Q. Is a cam a type of mechanism?</p> <p>10 A. It -- Well, the cam by itself might be a</p> <p>11 single link; but there are cam mechanisms. Usually</p> <p>12 it exists of three or four links, a cam and some kind</p> <p>13 of a follower arrangement.</p> <p>14 Q. Okay. Are cam -- In the situation where</p> <p>15 you have a cam with some kind of a follower</p> <p>16 arrangement, would that be a linkage as well?</p> <p>17 A. I would call that a mechanism, but perhaps</p> <p>18 not a linkage.</p> <p>19 Linkages, typically, we think about the</p> <p>20 links that are connected via what are called lower</p> <p>21 pair joints like revolute joints; and we distinguish</p> <p>22 those from cam mechanisms that have surface contact.</p> <p>23 Q. Uh-huh.</p> <p>24 A. But I would know what you were talking</p> <p>25 about if you said a cam linkage, for example.</p>                                                                                                      | <p style="text-align: right;">Page 44</p> <p>1 A. The word "mechanism" is broader. A</p> <p>2 linkage --</p> <p>3 Typically, in the field of mechanisms,</p> <p>4 people refer to linkages as devices that have simpler</p> <p>5 connections between the links -- revolute joints or</p> <p>6 slider joints; and once the surface profiles become</p> <p>7 important, we tend not to call those linkages; and we</p> <p>8 tend to call them cam and follower mechanisms or</p> <p>9 higher pair -- broadly higher pair mechanisms.</p> <p>10 Q. What do you mean when you say higher pair</p> <p>11 mechanisms?</p> <p>12 A. When two surfaces are in contact with each</p> <p>13 other, those surfaces can have any shape. A cam or a</p> <p>14 gear, too, theoretically at least, could take on any</p> <p>15 shape and produce any type of input-output motion;</p> <p>16 and so it's --</p> <p>17 From an analysis and design viewpoint,</p> <p>18 it's a little different than designing a linkage. In</p> <p>19 a linkage, you typically only have a finite number of</p> <p>20 design variables to pick the lengths of the links.</p> <p>21 In a higher pair mechanism, a cam or gear,</p> <p>22 you can decide on the shape of the profiles that</p> <p>23 contact each other; and in that case, you have an</p> <p>24 infinite number of design choices; but you can have</p> <p>25 mechanisms that are cam follower-type mechanisms that</p> |
| <p style="text-align: right;">Page 43</p> <p>1 Q. Okay. The next chapter, Chapter 4, is</p> <p>2 called, "Spur Gears."</p> <p>3 A. Correct.</p> <p>4 Q. What's a spur gear?</p> <p>5 A. Spur gears, kinematically, they're just</p> <p>6 like cam and follower mechanisms. They're devices</p> <p>7 that work through contact of surfaces, just like a</p> <p>8 cam and a follower; but there are some very</p> <p>9 particular advantages to a particular shape called an</p> <p>10 involute that's used to create almost all gear teeth.</p> <p>11 And so Chapter 4 really focuses on</p> <p>12 mechanisms, cam and follower-type mechanisms, but</p> <p>13 used in a gear setting where you need to generate a</p> <p>14 velocity ratio that maintains -- that's consistent</p> <p>15 through the motion of the surfaces as they interact,</p> <p>16 so it's really the --</p> <p>17 Fundamentally, two spur gears in mesh are</p> <p>18 just like a cam and the follower. Kinematically,</p> <p>19 they're the same mechanisms; but this chapter talks</p> <p>20 about a particular shape of that cam surface called</p> <p>21 an involute and why that's so important.</p> <p>22 Q. In your mind, is the fact that two spur</p> <p>23 gears are in mesh, would that make it more</p> <p>24 appropriate to refer to that arrangement as a linkage</p> <p>25 than a general cam follower setting?</p> | <p style="text-align: right;">Page 45</p> <p>1 are also quite simple.</p> <p>2 Q. Okay. And I asked that question initially</p> <p>3 because you were reluctant, I think, to call a cam</p> <p>4 and follower a linkage; and you said something to the</p> <p>5 effect of, you know, you'd understand what I was</p> <p>6 talking about.</p> <p>7 But my question is: Is the meshed gears</p> <p>8 more like a linkage in your mind than a general cam</p> <p>9 and follower?</p> <p>10 A. No. I think if I were trying to describe</p> <p>11 it to somebody in the field, a person of skill in the</p> <p>12 art, the linkage has a more specific --</p> <p>13 Q. Got it.</p> <p>14 A. -- connotation.</p> <p>15 So a linkage is a type of mechanism. A</p> <p>16 cam and follower is also a type of mechanism, but it</p> <p>17 would be more informative to say it's a linkage --</p> <p>18 Q. Uh-huh.</p> <p>19 A. -- if it -- if that, in fact, is what</p> <p>20 we're talking about.</p> <p>21 Q. Is a spur gear arrangement a type of</p> <p>22 mechanism?</p> <p>23 A. Again, two spur gears enmeshed are just</p> <p>24 like a cam and follower, so it's three bodies, a</p> <p>25 ground and two moving bodies that contact each other.</p>                                                                                                                                                                                                 |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p style="text-align: right;">Page 46</p> <p>1 Q. So that would be an example of a type of<br/>2 mechanism?</p> <p>3 A. It is a type of --</p> <p>4 THE COURT REPORTER: I'm sorry. It would<br/>5 be an example of?</p> <p>6 MR. WEED: Of a type of mechanism.</p> <p>7 THE COURT REPORTER: Okay.</p> <p>8 THE WITNESS: Right. It's the same type<br/>9 of mechanism as a cam and follower.</p> <p>10 Q. (By Mr. Weed) Okay. The next chapter,<br/>11 Chapter 5, is titled "Nonstandard Spur Gears."</p> <p>12 Do you see that?</p> <p>13 A. I do.</p> <p>14 Q. And what is a nonstandard spur gear?</p> <p>15 A. Here, we're getting into some of the<br/>16 nuances of this shape of the contacting surfaces; and<br/>17 so without trying to burden the discussion with a lot<br/>18 of detail, but the shape of --</p> <p>19 The specific shape of the surfaces greatly<br/>20 affects how the device performs in a practical<br/>21 application; and so nonstandard spur gears and<br/>22 standard spur gears, the Chapter 4 and Chapter 5, if<br/>23 you looked at those, they would -- you would not see<br/>24 a difference between them; but it has to do with<br/>25 complying with particular standards for how gears are</p>     | <p style="text-align: right;">Page 48</p> <p>1 But it's just -- It's different<br/>2 variations on types of gears and gear trains.</p> <p>3 Q. Okay. And you said the phrase, "gear<br/>4 trains." That's the title of Chapter 7, right?</p> <p>5 A. Right. And I'm glad you mentioned that,<br/>6 because Chapter 6 is not about gear trains. It's<br/>7 about gears in mesh.</p> <p>8 Chapter 7 then goes on. A gear train is<br/>9 more than -- typically more than two gears in mesh,<br/>10 so, for example, the transmission would be an example<br/>11 of gear train.</p> <p>12 Q. Do you know if Chapters 1 through 7 were<br/>13 all a part of the third edition of this textbook?</p> <p>14 A. I'm not certain. We may have rearranged<br/>15 the order; but all of these topics would have been<br/>16 covered in the original textbook, the earlier<br/>17 editions.</p> <p>18 There's significant material that's been<br/>19 added and modified to most of these chapters; but I<br/>20 think the contents of this, the topical contents were<br/>21 probably in the very first edition.</p> <p>22 Q. Okay. So in other words, none of those<br/>23 types of mechanisms were created between the third<br/>24 and the fourth edition; is that fair?</p> <p>25 A. Well, of the -- The mechanisms that we</p>                                                        |
| <p style="text-align: right;">Page 47</p> <p>1 made and violating those standards in certain cases<br/>2 when you're concerned about -- more concerned about<br/>3 tooth strength, for example.</p> <p>4 So it's a variation on the theme of spur<br/>5 gears, but it's the same mechanism.</p> <p>6 Q. And when you say standards, are you<br/>7 talking about like UL-type standards or something<br/>8 different?</p> <p>9 A. UL-type standards. In this case, it would<br/>10 be ASME --</p> <p>11 Q. Got it.</p> <p>12 A. -- or ASTM standards or European standards<br/>13 for what the pitch or the module of the gear tooth<br/>14 would be.</p> <p>15 Q. Got it. Okay. So Chapter 6 is called,<br/>16 "Bevel, Helical, and Worm Gearing," right?</p> <p>17 A. Correct.</p> <p>18 Q. And what is that referring to?</p> <p>19 A. Again, these are devices that have, like<br/>20 cam and followers and spur gears, they have three<br/>21 links -- a ground link and then two gears in mesh;<br/>22 but the teeth can take on different orientations; and<br/>23 so if you want to connect two shafts, for example,<br/>24 that are at right angles to each other, you might use<br/>25 a beveled gear, rather than a spur gear.</p> | <p style="text-align: right;">Page 49</p> <p>1 talk about were well-known a hundred years --</p> <p>2 Q. Right.</p> <p>3 A. -- or more ago, and so this is really just<br/>4 a discussion of how to analyze and design those types<br/>5 of mechanisms, and that would have been in the<br/>6 earlier editions.</p> <p>7 Q. I don't know how this field of academia<br/>8 works; but in your mind, in the last ten years, has<br/>9 anybody come up with a new type of mechanism that's<br/>10 been kind of a splash in the academic community?</p> <p>11 A. I can't think of anything that is a new<br/>12 type of mechanism. This is a science that's pretty<br/>13 well-known. It's been around for a long time.</p> <p>14 And I don't want to say there can't be<br/>15 anything new and exciting, but there are simple types<br/>16 of machines and simple types of mechanisms, and<br/>17 that's really what we talk about in this text.</p> <p>18 So I think it's all pretty well-known; and<br/>19 I don't know of anything that would be novel that<br/>20 would, for example, motivate me to want to write a<br/>21 new edition of the book with a chapter on some new<br/>22 type of mechanism.</p> <p>23 Q. You didn't want to write a new chapter of<br/>24 the book after reading the patents-in-suit here?</p> <p>25 A. No. I didn't see any need to do that.</p> |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p style="text-align: right;">Page 50</p> <p>1 Q. Okay. When you read the patents-in-suit,<br/>2 did you see descriptions of any new types of<br/>3 mechanisms?<br/>4 A. No.<br/>5 Q. In the book, do you describe an activation<br/>6 mechanism anywhere?<br/>7 A. I haven't tried to review the book to see<br/>8 if there's any discussion of that. To my<br/>9 recollection, there's not.<br/>10 Q. In the book, do you describe a<br/>11 deactivation mechanism anywhere?<br/>12 A. To my recollection, no.<br/>13 Q. In the book, do you describe a<br/>14 reattachment mechanism anywhere?<br/>15 A. Yeah. Let me be a little careful here,<br/>16 too, because the mechanical devices that we're<br/>17 talking about are clearly described and discussed;<br/>18 but those words are probably not used in the text. I<br/>19 would have to look to confirm that.<br/>20 Q. Okay. One of the opinions or I -- Maybe<br/>21 not even an opinion, but one of the things we<br/>22 observed in your declaration is a difference between<br/>23 what you believe should be the definition of a person<br/>24 of skill in the art between your view and Dr. Pratt's<br/>25 view, right?</p> | <p style="text-align: right;">Page 52</p> <p>1 line of Paragraph 24, you say the phrase<br/>2 "sensor-based systems," right?<br/>3 A. Yes. Correct.<br/>4 Q. What did you mean when you wrote<br/>5 sensor-based systems?<br/>6 A. These are electromechanical systems. The<br/>7 focus of the two patents that I have reviewed and<br/>8 provided an opinion on, the '158 and the '445 patent,<br/>9 are really mechanical design patents; but these are<br/>10 devices clearly that use sensors to detect various<br/>11 environmental conditions.<br/>12 And I think having some understanding of<br/>13 how these devices are used and how the mechanics in<br/>14 the sensor portion relate to each other is important,<br/>15 so I think having some familiarity with sensor-based<br/>16 systems as they would be implemented with mechanical<br/>17 hardware is important.<br/>18 Q. And do you know if there are any<br/>19 sensor-based systems described in your textbook?<br/>20 A. The focus of the text is largely on the<br/>21 mechanics, the kinematics of mechanisms; but in<br/>22 Chapter 12, there is a brief introduction to robotic<br/>23 devices; and these are sensor-based systems.<br/>24 Q. Okay. And do you know if that Chapter 12<br/>25 is something that was added in the fourth edition?</p> |
| <p style="text-align: right;">Page 51</p> <p>1 A. Yes.<br/>2 Q. And I think -- And we can find it. But I<br/>3 think what you say is that in your opinion a person<br/>4 of skill should have experience working with<br/>5 mechanical systems that interact with sensors, right?<br/>6 A. Right. I would say that my opinion and<br/>7 Dr. Pratt's opinions are pretty similar, but I do<br/>8 think sensor-based systems are important, and so I<br/>9 added that to the definition of what I think is<br/>10 appropriate for a person of ordinary skill in the<br/>11 art.<br/>12 Q. And what do you mean --<br/>13 And are you looking at Paragraph 24 right<br/>14 now?<br/>15 A. Well, I just got to that, so I haven't had<br/>16 a chance to look at it. I was just talking from<br/>17 memory.<br/>18 Q. Yeah. Why don't you give that a quick<br/>19 read, and then let me know when you're done.<br/>20 MR. KAZI: Do you mind if I grab this book<br/>21 while you're --<br/>22 THE WITNESS: No, no.<br/>23 MR. KAZI: -- still reading here?<br/>24 THE WITNESS: Okay. I think I'm with you.<br/>25 Q. (By Mr. Weed) In the second-to-the-last</p>                                  | <p style="text-align: right;">Page 53</p> <p>1 A. Yes. That is a chapter that I developed.<br/>2 Q. Okay. Got it.<br/>3 Just a couple more. I know it's been<br/>4 about an hour, but a couple more questions on this<br/>5 topic. Then we can take a break.<br/>6 If you go back to Paragraph 62 on Page 23<br/>7 of your declaration --<br/>8 A. Yes.<br/>9 Q. -- in the definition that you quote from<br/>10 your book, it talks about rigid or resistant bodies.<br/>11 Do you see that?<br/>12 A. I do.<br/>13 Q. What's the difference between a rigid body<br/>14 and a resistive body?<br/>15 A. Real devices, real members of bodies in<br/>16 any device are never perfectly rigid; and it's a --<br/>17 Rigidity, the ability to not deflect at<br/>18 all or deform under load is a theoretical concept;<br/>19 and so we have to recognize that real mechanisms have<br/>20 bodies that do deflect somewhat.<br/>21 But if the deflection is slight, then the<br/>22 basic laws of kinematics can be applied. Typically,<br/>23 it takes some judgment; but it's just a recognition<br/>24 that no real element is perfectly rigid.<br/>25 This is a science about devices that don't</p>                                                                                                                         |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p style="text-align: right;">Page 54</p> <p>1 have significant deflection as part of<br/> 2 their input-output motion.<br/> 3 Q. Would you agree that in practice the<br/> 4 amount of deflection that is acceptable varies<br/> 5 depending on the application?<br/> 6 A. Yes. I agree with that.<br/> 7 Q. So a piece of plastic may be okay in a<br/> 8 smoke alarm, but wouldn't be an okay cam in an engine<br/> 9 in a car, right?<br/> 10 A. That -- Yeah. That's a pretty<br/> 11 overarching statement. It may be okay in both cases,<br/> 12 depending on the details of it; but deflection is an<br/> 13 important consideration.<br/> 14 Q. And when you say depending on the details<br/> 15 of it, what kinds of details do you mean?<br/> 16 A. Well, first of all, there are some plastic<br/> 17 materials that can be made quite rigid. Typically,<br/> 18 in an engine of a car, for example, heat is a major<br/> 19 consideration, so the ability to withstand heat is<br/> 20 important.<br/> 21 The deflection of a cam in an engine could<br/> 22 be accounted for in the design process. You<br/> 23 typically would not see a plastic cam in an engine,<br/> 24 so I don't want to imply that; but I also would say<br/> 25 it's not impossible to consider a plastic member</p> | <p style="text-align: right;">Page 56</p> <p>1 about the amount of deflection that might be<br/> 2 permissible, but that's --<br/> 3 I think Figure 1.1 is a nice example.<br/> 4 Link 3 in that mechanism, slider crank mechanism,<br/> 5 could be made of a flexible material; and it's<br/> 6 actually pretty common to do that, so Link 3 could be<br/> 7 a cable that has no or very little stiffness in<br/> 8 compression, but higher stiffness in tension.<br/> 9 And in the right application, it would be<br/> 10 a common and acceptable implementation of that<br/> 11 mechanism to use Link 3 as a pretty flexible member,<br/> 12 so a lot of it depends on the application and how the<br/> 13 link is expected to be loaded.<br/> 14 Q. So in that situation where you talked<br/> 15 about stiffness in tension versus tension in<br/> 16 compression, is that related to the concept of<br/> 17 rigidity?<br/> 18 A. It is.<br/> 19 Q. Okay. So in that situation, would it be<br/> 20 proper to say that a cable has more rigidity in<br/> 21 tension than it does in compression?<br/> 22 A. Yes.<br/> 23 Q. And is it fair to say that Chapter 1<br/> 24 assumes rigidity in its discussion of mechanisms?<br/> 25 A. I think it's fair to say that the</p>                                  |
| <p style="text-align: right;">Page 55</p> <p>1 that's, say, composite-reinforced or<br/> 2 filament-reinforced member might be used in some<br/> 3 types of engines.<br/> 4 So I think it depends a lot on the details<br/> 5 of the application.<br/> 6 Q. And is it true that the book doesn't<br/> 7 really focus on that aspect of mechanism design; and<br/> 8 instead, is about sort of the theoretical and the<br/> 9 math behind it?<br/> 10 A. Yeah. I'm not quite sure what you're<br/> 11 asking. Maybe you could reframe that in a --<br/> 12 Q. Well, for example --<br/> 13 A. -- couple of instances.<br/> 14 Q. -- we were looking at Chapter 1, and there<br/> 15 are drawings that we looked at; and if you look at<br/> 16 even just Figure 1.1, which is titled slider crank<br/> 17 mechanism --<br/> 18 A. Yes.<br/> 19 Q. -- I don't see in that figure and I didn't<br/> 20 see in the text discussion about, well, if this thing<br/> 21 is being used in a bicycle, you know, this amount of<br/> 22 deflection is okay versus other applications<br/> 23 requiring more or less deflection, right?<br/> 24 A. I think that's a fair characterization,<br/> 25 that it's certainly here in Chapter 1. We don't talk</p>                                                           | <p style="text-align: right;">Page 57</p> <p>1 assumption is that deflections are not significant in<br/> 2 affecting the analysis of the machine, but there's a<br/> 3 recognition that all real things deflect somewhat.<br/> 4 And so as you introduce students to a<br/> 5 science like this, it's important to start out with<br/> 6 assumptions that make the material tractable<br/> 7 initially and then later talk about the outlier<br/> 8 cases, for example, where you may have significant<br/> 9 deflection of one of the links and how do you deal<br/> 10 with that.<br/> 11 I've written papers on that. There's not<br/> 12 a lot of discussion that I recall in the book about<br/> 13 flexibility and significant flexibility of<br/> 14 mechanisms.<br/> 15 Q. Okay. And then just one more question for<br/> 16 you on Paragraph 62. The end of the definition you<br/> 17 quote talks about definite relative motion.<br/> 18 Do you see that?<br/> 19 A. I do.<br/> 20 Q. What does that mean?<br/> 21 A. Again, this is about the interaction of<br/> 22 the bodies that form the mechanism creating a motion<br/> 23 that one way to say it would be is repeated, that we<br/> 24 don't have links of the mechanism that are, for<br/> 25 example, free to move under dynamic load.</p> |

15 (Pages 54 - 57)

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p style="text-align: right;">Page 58</p> <p>1 So when your car hits a bump, the piston<br/>2 doesn't move relative to the engine as a result, or<br/>3 not significantly. As I've said already, there's<br/>4 always some deflection, but that we know that the<br/>5 path that all the bodies in the mechanism will take<br/>6 based on the links and the connections between those<br/>7 links.<br/>8 Q. Is the idea of definite relative motion<br/>9 also something that assumes rigidity?<br/>10 A. I think it assumes that the bodies are<br/>11 resistant, so significant deflection due to dynamic<br/>12 forces is not typically contemplated in the kinematic<br/>13 analysis. Later in the textbook, in the later<br/>14 chapters, there's significant analysis of the<br/>15 dynamics of mechanisms; and at that point, we can<br/>16 begin to take into account deflections of links, once<br/>17 we know the forces.<br/>18 So deflections always depend on the forces<br/>19 that are at play; and so without studying the<br/>20 dynamics, we can't make any -- perform any analysis<br/>21 of how a link might deflect.<br/>22 Once you understand the dynamics, what<br/>23 accelerations the mechanism undergoes, what forces<br/>24 are at play, then you can begin to consider<br/>25 deflections.</p> | <p style="text-align: right;">Page 60</p> <p>1 front-and-back, single-sheet flyer that describes the<br/>2 features and benefits and generally the operation of<br/>3 the device and the technical specifications.<br/>4 Q. Okay. And is this a document that you<br/>5 found for purposes of your work in the case?<br/>6 A. Are you asking me did I uncover this, I<br/>7 found it --<br/>8 Q. Yes.<br/>9 A. -- or was it provided to me?<br/>10 Q. That's the question.<br/>11 A. I think it was provided to me. I can't<br/>12 quite recall.<br/>13 Q. Okay. And in your declaration, which is<br/>14 Exhibit 1, if you'd look at Paragraph 67 on Page 25.<br/>15 A. Yes.<br/>16 Q. Is the document that I marked as<br/>17 Deposition Exhibit 5, the data sheet you reference in<br/>18 Paragraph 67?<br/>19 A. I believe it is. Yes.<br/>20 Q. Okay. Have you ever seen the Kidde<br/>21 Product Model 0910? I mean physically.<br/>22 A. I have not inspected it in great detail,<br/>23 but I think I have seen it.<br/>24 Q. Okay. Do you know the date for Exhibit 5?<br/>25 A. Yes. It bears a -- If you'll look on the</p>                                                                                                                    |
| <p style="text-align: right;">Page 59</p> <p>1 And I should say, too, that mechanisms can<br/>2 use springs; and we know those are devices that<br/>3 deflect as long as their motion is controlled.<br/>4 Q. Okay. So would you consider a spring to<br/>5 be a rigid or resistant body?<br/>6 A. Typically not, but it's a -- It can be a<br/>7 component that's used in designing a mechanism to<br/>8 create, for example, return force or help to control<br/>9 forces.<br/>10 MR. WEED: Okay. Why don't we take a<br/>11 break.<br/>12 THE WITNESS: Okay.<br/>13 MR. WEED: It's been a little over an<br/>14 hour.<br/>15 (Recess from 11:19 a.m. to 11:31 a.m.).<br/>16 (Exhibit 5 was marked for identification.)<br/>17 Q. (By Mr. Weed) Welcome back, sir.<br/>18 A. Thank you.<br/>19 Q. I'm going to hand you what I've marked as<br/>20 Exhibit 5. Give that a look, and let me know if you<br/>21 recognize it.<br/>22 A. I do. Yes.<br/>23 Q. And what is Exhibit 5?<br/>24 A. This is a description of a Kidde product.<br/>25 It's called Model O910, and it's just a</p>                                                                                                                                                                                                                                   | <p style="text-align: right;">Page 61</p> <p>1 back of the sheet, it bears at least a revision of<br/>2 January of 2009.<br/>3 Q. And do you know the dates of the two<br/>4 patents about which you opined?<br/>5 A. The priority dates on these patents, as I<br/>6 recall, is August of 2003.<br/>7 Q. Okay. Did the difference in dates affect<br/>8 your opinion at all?<br/>9 A. Well, this is obviously a document that<br/>10 was created after the priority date of the patents;<br/>11 but I do think it -- It is helpful in understanding<br/>12 what a person of skill in the art would understand,<br/>13 so it's relevant; but it doesn't predate the patents.<br/>14 Q. What did you do to verify that the<br/>15 disclosure of Exhibit 5, which is dated in 2009,<br/>16 would have been relevant to a person of skill in the<br/>17 art in 2003?<br/>18 A. Well, I read the document; and I've<br/>19 reviewed the material that I've discussed in my<br/>20 declaration; and I think I have a pretty good sense<br/>21 of what a person of skill in the art would understand<br/>22 as of the time of the invention, so I think it's<br/>23 relevant.<br/>24 Q. And you describe this in your report as a<br/>25 data sheet, right?</p> |

16 (Pages 58 - 61)

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p style="text-align: right;">Page 62</p> <p>1 A. I do. Yes.</p> <p>2 Q. What is your understanding of the intended</p> <p>3 audience for Deposition Exhibit 5?</p> <p>4 A. I view it as a general purpose document</p> <p>5 that would be useful to consumers. Probably would</p> <p>6 also be useful to retailers who are interested in</p> <p>7 marketing a product.</p> <p>8 Q. If you would look on the second page of</p> <p>9 Exhibit 5, it's the back.</p> <p>10 A. Yes.</p> <p>11 Q. We can look at the first paragraph. It</p> <p>12 says the smoke alarm shall be Kidde Unit 0910/0910CA</p> <p>13 or approved equal, right?</p> <p>14 A. Yes.</p> <p>15 Q. Do you know why the document uses the word</p> <p>16 "shall"?</p> <p>17 A. I don't know specifically why the word was</p> <p>18 chosen here.</p> <p>19 But in an engineering context, the word</p> <p>20 "shall" is part of a requirement document, so that</p> <p>21 would be wording that you would typically find in a</p> <p>22 standard or in a requirement; and the interpretation</p> <p>23 of shall means that it is required of the product.</p> <p>24 Q. In the second paragraph right under the</p> <p>25 one we're looking at, it also starts out, "The smoke</p> | <p style="text-align: right;">Page 64</p> <p>1 A. Again, I don't recall precisely what the</p> <p>2 product looks like, if I even examined it for that.</p> <p>3 What this is, I think, describing is that</p> <p>4 there's no manual intervention required by the user</p> <p>5 other than to install the alarm, so you don't have to</p> <p>6 have a separate manual switch or a pull tab. You</p> <p>7 install the device and something causes it to</p> <p>8 activate.</p> <p>9 It doesn't describe that here; but from</p> <p>10 consumer's viewpoint or a retailer's, the idea that</p> <p>11 it's -- activates automatically, I think, is the key</p> <p>12 feature.</p> <p>13 Q. Okay. The last sentence in that paragraph</p> <p>14 says, "The customer can use a simple tool such as a</p> <p>15 screwdriver to deactivate the unit..."</p> <p>16 Right?</p> <p>17 A. Yes.</p> <p>18 Q. What does the deactivation feature look</p> <p>19 like?</p> <p>20 A. I don't recall the exact details of it.</p> <p>21 Q. Okay. Do you know what other tools other</p> <p>22 than a screwdriver could be used?</p> <p>23 A. I don't.</p> <p>24 Q. Okay. There's a paragraph in that same</p> <p>25 column that's in italics.</p> |
| <p style="text-align: right;">Page 63</p> <p>1 alarm can be installed..."</p> <p>2 Do you see that?</p> <p>3 A. I do.</p> <p>4 Q. The third line, it says, "The alarm shall</p> <p>5 incorporate an automatic activation feature..."</p> <p>6 Do you see that?</p> <p>7 A. I do.</p> <p>8 Q. Does the Model 0910 have an automatic</p> <p>9 activation feature?</p> <p>10 A. I believe it does. Yes.</p> <p>11 Q. And what does it look like?</p> <p>12 A. I don't recall that.</p> <p>13 Q. If you would, go back to the first page of</p> <p>14 Exhibit 5 under the heading "Description."</p> <p>15 You see that?</p> <p>16 A. I do.</p> <p>17 Q. The third -- The fourth line -- I'm</p> <p>18 sorry -- it says, "The 0910 alarm will automatically</p> <p>19 activate when it is attached to the mounting bracket;</p> <p>20 semicolon, there are no pull-tabs, no switches,</p> <p>21 everything is automatic."</p> <p>22 Right?</p> <p>23 A. That's correct.</p> <p>24 Q. From reading that, what does the automatic</p> <p>25 activation feature look like?</p>                                                                                                                                                                              | <p style="text-align: right;">Page 65</p> <p>1 Do you see that?</p> <p>2 A. I see a boldface in italic --</p> <p>3 Q. Right.</p> <p>4 A. -- paragraph. Yes. Okay.</p> <p>5 Q. And then right under that is another</p> <p>6 paragraph that starts, "The Kidde 0910 sealed</p> <p>7 battery..."</p> <p>8 Do you see that?</p> <p>9 A. I do.</p> <p>10 Q. That sentence says, "The Kidde 0910 sealed</p> <p>11 battery operated smoke alarm features a</p> <p>12 self-activation mechanism making installation simple</p> <p>13 and easy."</p> <p>14 You see that?</p> <p>15 A. I do.</p> <p>16 Q. What does that self-activation mechanism</p> <p>17 look like?</p> <p>18 A. Again, this is referring to when the</p> <p>19 device is installed. A person of skill in the art I</p> <p>20 think would know how to create such a self-activation</p> <p>21 mechanism, but it doesn't describe the details of it</p> <p>22 here, and I don't recall off the top of my head what</p> <p>23 that -- the details of it look like.</p> <p>24 Q. So the person of skill in the art would</p> <p>25 know how to create such a self-activation mechanism.</p>                                                                                |

17 (Pages 62 - 65)

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p style="text-align: right;">Page 66</p> <p>1 Are there multiple ways to do that?</p> <p>2 A. I think there's a pretty limited</p> <p>3 collection of ways that it can be done by mounting</p> <p>4 the alarm to the bracket.</p> <p>5 It basically is the two components are</p> <p>6 engaged with each other. Something needs to create</p> <p>7 activation; and that, typically, would be</p> <p>8 interference of two surfaces with one another as you</p> <p>9 produce some relative motion.</p> <p>10 In this case, it's a, I believe, a</p> <p>11 twist-on device, so I think it's a pretty direct</p> <p>12 inference of how you would do this --</p> <p>13 Q. Well --</p> <p>14 A. -- at least.</p> <p>15 Q. Sorry.</p> <p>16 When you say, typically, would be</p> <p>17 interference, what do you mean by typically?</p> <p>18 A. Well, there may be other ways to activate</p> <p>19 the alarm; but what's well-known in the art is that</p> <p>20 these are devices that the alarm portion is threaded</p> <p>21 to or twisted on to the bracket, the mounting</p> <p>22 bracket; and the mounting bracket includes something</p> <p>23 that contacts something else on the alarm portion.</p> <p>24 And as you produce a twisting motion, the</p> <p>25 interference of those two parts causes activation.</p> | <p style="text-align: right;">Page 68</p> <p>1 bracket."</p> <p>2 Do you see that?</p> <p>3 A. I do.</p> <p>4 Q. And what does that look like?</p> <p>5 A. Again, I don't recall the details of this</p> <p>6 particular alarm; but a person of skill in the art</p> <p>7 would know that as you attempt to mount the alarm,</p> <p>8 there would be interference between mechanical</p> <p>9 components that would prevent that type of a -- that</p> <p>10 remounting of the alarm.</p> <p>11 So something happens that causes a</p> <p>12 component, maybe a tab, to block the path of the</p> <p>13 threaded portion of the alarm.</p> <p>14 Q. Would you be able to see the alarm lockout</p> <p>15 feature if you looked at the product?</p> <p>16 A. I believe you would be able to typically.</p> <p>17 Yes.</p> <p>18 Q. Wouldn't it also be possible to prevent a</p> <p>19 deactivated unit from being mounted back by breaking</p> <p>20 something off of it?</p> <p>21 A. Again, in this art, I think if you --</p> <p>22 There, typically, are multiple threads, so</p> <p>23 you twist -- typically, twist these devices on; and</p> <p>24 I'm now giving an example. There may be other ways</p> <p>25 to do it.</p>                                                                                                                                                              |
| <p style="text-align: right;">Page 67</p> <p>1 Q. Okay. So your conclusion about the</p> <p>2 interfering parts is based on the supposition that</p> <p>3 this product mounts by twisting; is that right?</p> <p>4 A. Again, I don't recall the details of this</p> <p>5 product; but that would be a common way to do it, a</p> <p>6 well-known method to a person of skill in the art.</p> <p>7 Q. Okay. The bottom paragraph in the</p> <p>8 description column --</p> <p>9 A. Yes.</p> <p>10 Q. -- that starts out, "At the end of the</p> <p>11 alarm's 10-year life...", do you see that?</p> <p>12 A. Yes.</p> <p>13 Q. The second sentence says, "Using a tool</p> <p>14 such as a small screwdriver, a deactivation switch</p> <p>15 removes power from the alarm and renders the</p> <p>16 batteries safe for disposal.</p> <p>17 Do you see that?</p> <p>18 A. I do.</p> <p>19 Q. What does that deactivation switch look</p> <p>20 like?</p> <p>21 A. Again, I don't recall the details of this</p> <p>22 particular alarm.</p> <p>23 Q. Okay. The next sentence says, "The alarm</p> <p>24 lockout feature mechanically prevented a deactivated</p> <p>25 unit from being mounted back on the mounting</p>                                                                                                       | <p style="text-align: right;">Page 69</p> <p>1 But the common way is to twist the alarm</p> <p>2 on to the bracket; and to prevent it from being</p> <p>3 remounted, if you broke off all of the threaded</p> <p>4 portions on either the bracket or on the alarm, then</p> <p>5 it wouldn't lock into place. It would -- If you</p> <p>6 tried to mount it, it would just fall off the</p> <p>7 bracket, I think.</p> <p>8 Q. So that would be another way to --</p> <p>9 Breaking parts off would be another way to prevent a</p> <p>10 deactivated unit from being mounted back, right?</p> <p>11 A. I think it's a possibility. It's one I</p> <p>12 haven't thought about, but it could be possible.</p> <p>13 Q. In the smoke alarms that you've looked at</p> <p>14 for this case, have you seen anywhere that's how it's</p> <p>15 done, something is broken off?</p> <p>16 A. I don't recall seeing that.</p> <p>17 Q. If you were to look at the Model 0910</p> <p>18 smoke alarm, would you be able to determine how it is</p> <p>19 automatically activated upon mounting?</p> <p>20 A. I feel certain that I would. Yes.</p> <p>21 Q. And if you were to look at the product,</p> <p>22 would you be able to see how the customer can use a</p> <p>23 simple tool such as a screwdriver to deactivate the</p> <p>24 unit?</p> <p>25 A. Yeah. And let me just qualify my previous</p> |

18 (Pages 66 - 69)

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p style="text-align: right;">Page 70</p> <p>1 answer and this one by saying it may require more to<br/> 2 see the mechanism. I'm just not certain. It may<br/> 3 require more than what a consumer would be able to<br/> 4 just view casually.<br/> 5 But I'm sure I would be able to see it.<br/> 6 Yes.<br/> 7 Q. Okay. And I asked you something similar<br/> 8 to this before.<br/> 9 But have you ever seen this document<br/> 10 before your work in this case?<br/> 11 A. Not to my recollection.<br/> 12 Q. All right. You can set that one aside.<br/> 13 I'm going to hand you what I will now mark<br/> 14 as Exhibit 6.<br/> 15 (Exhibit 6 was marked for identification.)<br/> 16 Q. (By Mr. Weed) There you go. And for the<br/> 17 record, this is a copy of the Watson patent.<br/> 18 Just take a quick look at it, and let me<br/> 19 know if you recognize Exhibit 6.<br/> 20 A. I do. Yes.<br/> 21 Q. And what you're looking at is a copy of<br/> 22 the United States Patent No. 5,578,996, right?<br/> 23 A. Correct.<br/> 24 Q. And you mentioned before that it was your<br/> 25 understanding that this patent is owned by at least</p>                                                     | <p style="text-align: right;">Page 72</p> <p>1 A. Yes. Correct.<br/> 2 Q. The first sentence of this paragraph says,<br/> 3 "Documents cited in the prosecution history of the<br/> 4 patents also use the term 'activation' in a similar<br/> 5 way." Right?<br/> 6 A. Correct.<br/> 7 Q. Now the claim term that you're opining<br/> 8 about here -- And you can go back if you want to<br/> 9 verify this. But the claim term you're talking about<br/> 10 here is activation mechanism, right?<br/> 11 A. That's correct.<br/> 12 Q. And in the quote, you have to Watson's<br/> 13 abstract, the phrase that is used is "activation<br/> 14 switch mechanism," correct?<br/> 15 A. That's correct.<br/> 16 Q. And the word "switch" does not appear in<br/> 17 the claim term you're opining about?<br/> 18 A. That's true. Yes.<br/> 19 Q. Is it your understanding that in all but<br/> 20 one of the instances where Watson uses the word<br/> 21 "mechanism," it's preceded by switch?<br/> 22 A. I don't recall that off the top of my<br/> 23 head.<br/> 24 Q. Well, I can represent for you that that's<br/> 25 true. There are 21 uses of the word "mechanism," and</p> |
| <p style="text-align: right;">Page 71</p> <p>1 one of the defendants in this case?<br/> 2 A. I see the assignee is BRK Brands, so I<br/> 3 believe that's correct. Yes.<br/> 4 Q. And apart from what you read on the face<br/> 5 of the Watson patent, do you have any other basis to<br/> 6 believe that it is owned by the defendants?<br/> 7 A. Not to my recollection.<br/> 8 Q. You don't know either Mr. Calvin Watson or<br/> 9 Mr. Thomas Kondziolka, right?<br/> 10 A. That's correct.<br/> 11 Q. Okay. And have you ever seen a product<br/> 12 that looks like the figures in the Watson patent?<br/> 13 A. My inspection of devices is, I would say,<br/> 14 superficial at this point. I haven't tried to do any<br/> 15 analysis, so I may. I may have seen something that<br/> 16 superficially looks like this, but I don't -- I<br/> 17 can't say with certainty.<br/> 18 Q. Okay. Now if you would at --<br/> 19 Keep the Watson reference nearby; and,<br/> 20 also, if you could turn to Paragraph 69 of your<br/> 21 report.<br/> 22 Let me know when you're there.<br/> 23 A. I'm there.<br/> 24 Q. So this is one of, I think, a couple of<br/> 25 places where you mention Watson, right?</p> | <p style="text-align: right;">Page 73</p> <p>1 20 of them are preceded by either switch or switched.<br/> 2 Does that surprise you?<br/> 3 A. No. It doesn't surprise me.<br/> 4 Q. Okay. The one time when it's not preceded<br/> 5 by a form of the word "switch" is at Column 4, Line<br/> 6 58 of Watson.<br/> 7 If you'll go there, please. It may be 59.<br/> 8 The numbering's slightly --<br/> 9 A. Ah. Okay.<br/> 10 Q. Okay.<br/> 11 A. I was looking one line down.<br/> 12 Q. Yeah.<br/> 13 A. I have to go back.<br/> 14 Q. Yeah. So it talks in that paragraph about<br/> 15 a reed-relay mechanism. You see that?<br/> 16 R-E-E-D, dash.<br/> 17 A. I do. Yes.<br/> 18 Q. What is a reed-relay mechanism?<br/> 19 A. Well, a relay mechanism typically --<br/> 20 And I haven't studied this portion of the<br/> 21 patent, and I'm not conversant with these figures.<br/> 22 I'd be happy to look further.<br/> 23 But a reed relay typically would refer to<br/> 24 something that's mechanically a reed's type switch<br/> 25 that then subsequently controls a relay. It is, I</p>                                                                               |

19 (Pages 70 - 73)

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p style="text-align: right;">Page 74</p> <p>1 think, the broad interpretation a person of skill in<br/>2 the art would have.</p> <p>3 How it's used here, I'd have to look more<br/>4 specifically at these figures.</p> <p>5 Q. If you look at that paragraph, it talks<br/>6 about Figure 6. It says Figure 6 illustrates a<br/>7 reed-relay mechanism shown generally at 100, so let's<br/>8 go and look at Figure 6.</p> <p>9 And then you might want to keep your<br/>10 finger in that and then look back at that paragraph.</p> <p>11 And let me know if reading those words<br/>12 with the picture helps you understand what a<br/>13 reed-relay mechanism is.</p> <p>14 A. Okay. I have a sense now of what's being<br/>15 described here.</p> <p>16 Q. Okay. Can you describe it for me, what a<br/>17 reed-relay mechanism is in the context of the Watson<br/>18 patent?</p> <p>19 A. Broadly -- Again, I haven't focused on<br/>20 this portion of the disclosure, so just to qualify my<br/>21 answers with it. I would like to spend more time<br/>22 with this before confirming my opinions, but what it<br/>23 appears --</p> <p>24 And I'll note that the -- I think the<br/>25 correct spelling is R-E-E-D. I think that's what's</p>                | <p style="text-align: right;">Page 76</p> <p>1 beginning of the paragraph that talks about the<br/>2 reed-relay mechanism in the detailed description, so<br/>3 where it's spelled correctly in Column 4 at Line 56<br/>4 or so. It says other embodiments of the one time<br/>5 activation switch mechanism 12a are shown in Figures<br/>6 6 through 9, right?</p> <p>7 A. It does say that. Yes.</p> <p>8 Q. So do you agree that the Watson patent<br/>9 describes that reed-relay mechanism as another<br/>10 embodiment of the one-time activation switch<br/>11 mechanism it had previously described?</p> <p>12 A. I see that here. I don't -- From what we<br/>13 just reviewed, I don't see what makes that a one-time<br/>14 activation switch, so there's probably additional<br/>15 disclosure that talks about that; but we haven't<br/>16 reviewed that yet.</p> <p>17 Q. Uh-huh. And then we don't need to get<br/>18 into it, but on Line -- unless you want to, but on<br/>19 Line 66 in Column 4, it starts out another embodiment<br/>20 of a one-time activating switch mechanism 110 is<br/>21 illustrated in Figure 7, right?</p> <p>22 A. It does say that. Yes.</p> <p>23 Q. And then in Column 5 at Line 19, it says<br/>24 Figures 8 and 9 illustrate other embodiments of a<br/>25 one-time activating switch mechanism, right?</p> |
| <p style="text-align: right;">Page 75</p> <p>1 intended. In the brief description of the drawings<br/>2 in Column 2, I think the same mechanism is referred<br/>3 to with a R-E-A-D relay arrangement. I assume that's<br/>4 just a typo there.</p> <p>5 But what's being described is essentially<br/>6 the use of an electromagnet to close a switch. It<br/>7 says -- And let me quote from the patent, and then<br/>8 I'm happy to discuss it further --</p> <p>9 Q. Uh-huh.</p> <p>10 A. -- if you'd like.</p> <p>11 Q. Uh-huh.</p> <p>12 A. Starting on about Line 59 or 60 of Exhibit<br/>13 4, it says, "A first relay portion 102, a magnet, is<br/>14 mounted to the mounting flange 22. A second relay<br/>15 portion 104, a relay body with closeable contacts, is<br/>16 mounted to the base 16.</p> <p>17 "When the first and second relay portions<br/>18 102 and 104 are brought into close proximity, one<br/>19 with the other, the relay contacts close and activate<br/>20 the detector..."</p> <p>21 So my understanding from my quick reading<br/>22 today is that the electromagnet causes a mechanical<br/>23 motion that closes a relay and can then activate a<br/>24 circuit, for example.</p> <p>25 Q. Okay. And if you would, look at the</p> | <p style="text-align: right;">Page 77</p> <p>1 A. I'm sorry. Could you put me back where<br/>2 you just began to read.</p> <p>3 Q. Sure. Sorry about that.</p> <p>4 A. No.</p> <p>5 Q. Column 5, Line 19. It just says,<br/>6 "... other embodiments of a one-time activating<br/>7 switch mechanism," right?</p> <p>8 A. It does say that. Yes.</p> <p>9 Q. Let's go back to Paragraph 69. You can<br/>10 set Watson aside.</p> <p>11 Let's go back to Paragraph 69 of your<br/>12 declaration. The --</p> <p>13 Sorry. Are you there?</p> <p>14 A. I'm there. Yes.</p> <p>15 Q. Okay. After the quote you have to Watson,<br/>16 you cite to U.S. Patent No. 6,433,700 to Malewski?</p> <p>17 A. Yes.</p> <p>18 Q. And I didn't print a copy of that.</p> <p>19 But what you describe about it is -- Now<br/>20 what you say about it is describing a "as," quote,<br/>21 "'conventional,'" closed quote, "a detector with an<br/>22 activation and deactivation switch." Right?</p> <p>23 A. Yes.</p> <p>24 Q. Is it fair to say that you found the<br/>25 description of a switch in Malewski to be relevant to</p>                                                                                                                                                                                                                                        |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p style="text-align: right;">Page 78</p> <p>1 the claim phrase "activation mechanism"?<br/> 2 A. Yes. I think that's fair.<br/> 3 Q. Why was that?<br/> 4 A. Well, this reference is talking about how<br/> 5 these devices -- how a person of skill in the art<br/> 6 would, at the time of the invention have understood<br/> 7 these devices to work and what is conventional. For<br/> 8 example, a activation and deactivation switch was<br/> 9 clearly well-known in the art.<br/> 10 Q. But just to be clear, the phrase<br/> 11 "activation switch" or "deactivation switch" is not<br/> 12 in the claim language we've analyzed, right?<br/> 13 A. Right. A switch is a specific way you<br/> 14 could activate and deactivate. It could be done in<br/> 15 other ways.<br/> 16 Q. Okay. And then the last citation -- or<br/> 17 the last citation and parenthetical in that paragraph<br/> 18 is to U.S. Patent No. 5,395,168.<br/> 19 Do you see that?<br/> 20 A. I do. Yes.<br/> 21 Q. Do you know what patent that is?<br/> 22 A. I'm sorry. I didn't put it here.<br/> 23 Q. I think if you look at the face of the<br/> 24 patents-in-suit, you'll see it referring to something<br/> 25 called Cunningham.</p> | <p style="text-align: right;">Page 80</p> <p>1 A. Yes. One of the claim terms. So I<br/> 2 analyzed four claims terms, and one of them is<br/> 3 permanent deactivation mechanism. Correct.<br/> 4 Q. And so is there any difference in your<br/> 5 opinions in this report between the term that says<br/> 6 deactivation mechanism and the one that says<br/> 7 permanent deactivation mechanism?<br/> 8 A. Well, deactivation is to render the device<br/> 9 inoperable. A permanent deactivation is to render it<br/> 10 inoperable in such a way that it can't be made<br/> 11 operable again by a consumer.<br/> 12 Q. Now I just want to -- Let's make sure<br/> 13 we're talking about the right thing here. So if you<br/> 14 go back to Paragraph 21 of your report.<br/> 15 A. Yes. I'm with you.<br/> 16 Q. And there are the four terms that you<br/> 17 opine about, right?<br/> 18 A. Correct.<br/> 19 Q. And so I just want to -- I'm not trying<br/> 20 to have a got you here. But I think what went on is<br/> 21 there's a term "activate/deactivate system."<br/> 22 A. Correct.<br/> 23 Q. And then activation mechanism and<br/> 24 permanent deactivation mechanism are the mechanism<br/> 25 terms that talk about the concept of activation,</p>                                                                     |
| <p style="text-align: right;">Page 79</p> <p>1 A. Yes. Correct. Okay. And I'm sorry I<br/> 2 didn't --<br/> 3 Q. That's all right.<br/> 4 A. -- put it in my declaration. I just -- I<br/> 5 was sloppy there, but --<br/> 6 Q. But --<br/> 7 A. -- I --<br/> 8 Q. -- that's another one where you found this<br/> 9 reference because it was cited on the face of the<br/> 10 patents-in-suit, right?<br/> 11 A. Correct.<br/> 12 Q. Okay. And, again, here, you found it<br/> 13 relevant the way that that patent described switches<br/> 14 and tabs resulting in, quote, "mechanical actuation<br/> 15 or deactivation," right?<br/> 16 A. Yes. Again, showing that that was<br/> 17 well-known in the art.<br/> 18 Q. Right. Now in Paragraph 70, you say,<br/> 19 "These disclosures also relate to the," quote,<br/> 20 "'deactivation' term because deactivation would also<br/> 21 use known structures such as switches and tabs..."<br/> 22 Right?<br/> 23 A. Correct.<br/> 24 Q. Is it true that the claim term says<br/> 25 permanent deactivation mechanism?</p>                                                                                                                                                   | <p style="text-align: right;">Page 81</p> <p>1 right?<br/> 2 A. And deactivation. Correct.<br/> 3 Q. So is it true that you didn't offer<br/> 4 opinions about the phrase "deactivation mechanism" on<br/> 5 its own?<br/> 6 A. I think I -- As part of this discussion<br/> 7 about activation, I clearly offer an opinion that<br/> 8 deactivation would use the same kind of structures,<br/> 9 at least switches or tabs, for example, so I do<br/> 10 provide an opinion on that; but the focus really here<br/> 11 is on permanent deactivation mechanism.<br/> 12 Q. So why in Paragraph 70 are the disclosures<br/> 13 you cited above relevant to the notion of permanent<br/> 14 deactivation, as opposed to just deactivation?<br/> 15 A. Well, permanent deactivation requires<br/> 16 deactivation, so they're related. The root is<br/> 17 deactivation.<br/> 18 But then permanent deactivation requires<br/> 19 something more in addition to just being deactivated.<br/> 20 Q. And are you saying that the discussion in<br/> 21 Watson and Malewski and Cunningham about activation<br/> 22 is relevant to the concept of deactivation generally<br/> 23 or to permanent deactivation, in particular?<br/> 24 A. It's relevant to both, because the claims<br/> 25 of the patent require the deactivation to be in such</p> |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p style="text-align: right;">Page 82</p> <p>1 a way either called permanent or such that it can't<br/>2 be reactivated; and so the kinds of switches and tabs<br/>3 that are used to deactivate clearly form a portion or<br/>4 could form a portion of that.<br/>5 Q. But not all switches would result in<br/>6 permanent deactivation, right?<br/>7 A. That's true. You could have switches that<br/>8 do not result in permanent deactivation.<br/>9 Q. Like a switch on the wall for a light?<br/>10 A. Oh, that's an example. Yes.<br/>11 Q. Okay. And is it your opinion that the<br/>12 switches described in Watson and Malewski and<br/>13 Cunningham are switches that would permit permanent<br/>14 deactivation?<br/>15 A. They would be -- Those would be part of a<br/>16 permanent deactivation mechanism or could be.<br/>17 Q. All right. Okay. Let's move on to<br/>18 Section C on Page 26, which is about the phrase<br/>19 "reattachment prevention mechanism."<br/>20 Do you see that?<br/>21 A. I do. Yes.<br/>22 Q. And in Paragraph 73, you refer to this<br/>23 art. Do you see that, "In this art..."?<br/>24 A. I do.<br/>25 Q. What do you mean by "in this art"?</p>                                                               | <p style="text-align: right;">Page 84</p> <p>1 where reattachment is prevented by breaking off part<br/>2 of the structure that permitted attachment in the<br/>3 first place?<br/>4 A. I can't recall seeing that.<br/>5 Q. Paragraph 74, you say, "An," in quotes,<br/>6 "attachment mechanism," closed quotes, "refers to a<br/>7 class of structures with components that work<br/>8 together to create defined relative motion to create<br/>9 a coupling between the mounting bracket and the<br/>10 alarm," right?<br/>11 A. Correct.<br/>12 Q. And you don't preface that sentence with<br/>13 in this art. But is it fair to say you're referring<br/>14 here in 74 to the smoke alarm art as well?<br/>15 A. Yes. And life safety alarms and related<br/>16 devices, not -- Maybe not just smoke alarms.<br/>17 But, generally, yes. The same field of<br/>18 art.<br/>19 Q. Okay. And would a situation where<br/>20 adhesives are used to attach a smoke alarm to a base<br/>21 be a situation where there is defined relative motion<br/>22 to create a coupling?<br/>23 A. I would have to see -- It's a<br/>24 hypothetical example. I haven't seen any such<br/>25 system.</p>                                                                                                                    |
| <p style="text-align: right;">Page 83</p> <p>1 A. In the field of the invention, which is<br/>2 life safety alarms.<br/>3 Q. Okay. And you say -- You continue that<br/>4 sentence by saying, "In this art, a," quote,<br/>5 "reattachment prevention mechanism," closed quote,<br/>6 "refers to physical interference between components<br/>7 that stops relative motion of the components and<br/>8 prevents a user from connecting the alarm to the<br/>9 mounting plate."<br/>10 Do you see that?<br/>11 A. I do.<br/>12 Q. What's the basis for that statement?<br/>13 A. That's what I've seen in the art that I've<br/>14 looked at, and that's my own personal experience.<br/>15 That's how you prevent reattachment, is you create a<br/>16 physical interference that prevents the components<br/>17 from being, for example, rotated together to engage<br/>18 threads.<br/>19 Q. When you say "that's what I've seen in the<br/>20 art," do you mean the prior art you looked at that<br/>21 was cited on the face of the patents-in-suit?<br/>22 A. I think that's a fair statement; but,<br/>23 also, my own personal experience in attaching alarms<br/>24 to brackets and how those work.<br/>25 Q. And, again, you've never seen an example</p> | <p style="text-align: right;">Page 85</p> <p>1 Typically, when you use adhesives, you're<br/>2 not creating a defined relative motion like you are<br/>3 with the screw threads that are used in the devices<br/>4 that I've looked at.<br/>5 Q. Uh-huh. So what do you mean when you say<br/>6 defined relative motion?<br/>7 A. This gets back to the definition of<br/>8 mechanisms. We have mating elements on the bracket<br/>9 with the base. We have slots typically, although it<br/>10 could be also tabs, for example, that form --<br/>11 If you look at them, they may not look<br/>12 like a screw thread; but actually it's a triple<br/>13 threaded if it has three of those, so it's really a<br/>14 segmented screw thread; and there's mating, a mating<br/>15 portion on the alarm and the bracket that allows<br/>16 those devices to be connected together with a<br/>17 helical, twisting motion. That's the defined<br/>18 relative motion.<br/>19 Q. So we talked a little bit about adhesives.<br/>20 Would you consider there to be defined relative<br/>21 motion if the one portion of the alarm was actually<br/>22 screwed into another portion of the alarm with a<br/>23 separate fastener?<br/>24 A. I'd have to see the exact implementation<br/>25 of that. It could be --</p> |

22 (Pages 82 - 85)

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p style="text-align: right;">Page 86</p> <p>1 Q. Uh-huh.</p> <p>2 A. -- if the motion is controlled such</p> <p>3 that -- the motion is --</p> <p>4 One way to say it is the motion is</p> <p>5 repeatable; that when you make the installation</p> <p>6 multiple times, that the motion is the same each</p> <p>7 time. That's the defined relative motion.</p> <p>8 Q. So -- Sorry.</p> <p>9 A. Yeah. So in that case, yes. I think</p> <p>10 you'd have a defined relative motion, but I think you</p> <p>11 could have a screw connection that wouldn't require</p> <p>12 that.</p> <p>13 Q. So, for example, if you had a prethreaded</p> <p>14 hole on the bracket into which a screw went through</p> <p>15 the alarm and into the prethreaded hole, that would</p> <p>16 be defined relative motion?</p> <p>17 A. Not necessarily. I think it could be, but</p> <p>18 not necessarily.</p> <p>19 Q. Okay. What about a situation where there</p> <p>20 are tabs that deform and then -- or deflect as the</p> <p>21 alarm is pushed on to the bracket and then spread</p> <p>22 back out again after they have passed a structure?</p> <p>23 Would that be defined relative motion?</p> <p>24 A. I would probably have to see it. It's a</p> <p>25 hypothetical question. I think it could be, but it</p> | <p style="text-align: right;">Page 88</p> <p>1 relative motion, there is only one motion permissible</p> <p>2 along the path, so you only permit one degree of</p> <p>3 freedom between the two.</p> <p>4 Again, I haven't seen cases of, in this</p> <p>5 art, where there are multiple degrees of freedom that</p> <p>6 are permitted, so it's, at least from my experience</p> <p>7 to date, hypothetical.</p> <p>8 But I think typically you control the</p> <p>9 motion so that you only have one degree of freedom</p> <p>10 that allows you to connect the two pieces together.</p> <p>11 Q. And this absolutely will be a</p> <p>12 hypothetical; but let's say that we have a round</p> <p>13 bracket; and the alarm portion was dimensioned to be</p> <p>14 just a little bit smaller than the bracket such that</p> <p>15 when you push it into the bracket, it actually makes</p> <p>16 forcible contact with the bracket and stays in place</p> <p>17 because of friction.</p> <p>18 A. Okay.</p> <p>19 Q. Would that be defined relative motion?</p> <p>20 A. Again, it's a hypothetical. I think it</p> <p>21 could be. It's guided in to move in a direction</p> <p>22 that's controlled by the -- I'm assuming you're</p> <p>23 referring to cylindrical --</p> <p>24 Q. Correct.</p> <p>25 A. -- pieces.</p>                |
| <p style="text-align: right;">Page 87</p> <p>1 wouldn't necessarily be.</p> <p>2 Q. Have you heard of the phrase "snap fit"</p> <p>3 before?</p> <p>4 A. I have. Yes.</p> <p>5 Q. And would you consider snap fit generally</p> <p>6 to be a defined relative motion-based attachment</p> <p>7 mechanism?</p> <p>8 A. It can be. It's not necessarily a defined</p> <p>9 relative motion.</p> <p>10 Q. When can it be?</p> <p>11 A. When the motion is repeated with multiple</p> <p>12 installations, so if every time I install the alarm</p> <p>13 to the bracket, the motion that the alarm undergoes</p> <p>14 in making that attachment, whether it's just a twist</p> <p>15 on or helical twist or snap-fit tabs, if it's guided</p> <p>16 in, in a way that the motion is controlled and</p> <p>17 repeatable, that's defined relative motion.</p> <p>18 Q. In how many dimensions does that</p> <p>19 repeatability have to occur?</p> <p>20 A. Now you're getting into a discussion of</p> <p>21 degrees of freedom --</p> <p>22 Q. Right.</p> <p>23 A. -- and how many degrees of freedom have to</p> <p>24 be removed.</p> <p>25 And typically, when we say defined</p>                                                                                                                                | <p style="text-align: right;">Page 89</p> <p>1 Q. Probably conical so that they would --</p> <p>2 A. Slightly conical --</p> <p>3 Q. Yeah.</p> <p>4 A. -- perhaps, and so you have an</p> <p>5 interference that -- And you push these devices</p> <p>6 together. In that case, there are probably two</p> <p>7 degrees of freedom that are permitted. One is the</p> <p>8 connection between the two devices, in other words,</p> <p>9 the motion along the axis you're pushing; and the</p> <p>10 other might be -- You might be free to rotate and</p> <p>11 install the alarm in any orientation, and that might</p> <p>12 still be considered control relative motion.</p> <p>13 I'd probably have to think more about</p> <p>14 that.</p> <p>15 Q. Uh-huh. So that's the phrase I was</p> <p>16 looking for. You used the phrase "interference fit."</p> <p>17 What does that mean?</p> <p>18 In your answer, you said interference fit.</p> <p>19 A. Okay. So yeah. That's not what I was</p> <p>20 referring to there.</p> <p>21 An interference fit is a mechanical -- a</p> <p>22 term in the mechanical arts that refers to assembling</p> <p>23 two components where the -- for example, a pin going</p> <p>24 into a hole. The pin is actually slightly larger</p> <p>25 than the hole; and so when you make the connection,</p> |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p style="text-align: right;">Page 90</p> <p>1 you're forcing one into the other; and you're<br/> 2 creating some amount of deformation.<br/> 3 In Paragraph 73, I'm really referring to a<br/> 4 physical interference like a blocking function, so<br/> 5 that there is, for example, a tab that prevents you<br/> 6 from continuing along a path of motion that would<br/> 7 otherwise be defined in the connecting system.<br/> 8 Q. Yeah. I understand. I wasn't trying to<br/> 9 link what you said in your answer to what 73 says.<br/> 10 In your answer to my question about the<br/> 11 hypothetical, you called it a interference fit, which<br/> 12 is the phrase I was looking for.<br/> 13 A. Yes.<br/> 14 Q. And so is it your view that a interference<br/> 15 fit could be a mechanism?<br/> 16 A. I'd just have to think more about that and<br/> 17 maybe see the example. I'm just not sure.<br/> 18 Q. Okay. Have you ever seen something that<br/> 19 is predicated on interference fit techniques that you<br/> 20 would consider to be a mechanism?<br/> 21 A. I think an interference fit could be part<br/> 22 of a mechanism; but just in itself, two parts mated<br/> 23 with interference fit, I can't think of anything that<br/> 24 I would have seen that functions in that way that<br/> 25 would be considered a mechanism.</p> | <p style="text-align: right;">Page 92</p> <p>1 And so is it --<br/> 2 Are you saying that some of your -- Some<br/> 3 of the experience you have personally with smoke<br/> 4 alarms that you're relying on in this case came<br/> 5 before 2003?<br/> 6 A. Yeah. That's a good question, because I<br/> 7 don't have a timestamp --<br/> 8 Q. Right.<br/> 9 A. -- for -- I have used smoke alarms prior<br/> 10 to 2003, certainly; but the exact attachment<br/> 11 mechanism and the timeframe, I can't be specific<br/> 12 about that.<br/> 13 Q. Okay. And while we're on the topic, are<br/> 14 you familiar with whether UL has standards related to<br/> 15 attachment and reattachment prevention?<br/> 16 A. Yeah. I have not studied the UL standards<br/> 17 in detail, but I have seen the UL standards, so I<br/> 18 know that there are standards that relate to that.<br/> 19 Q. In the context of smoke alarms?<br/> 20 A. Yes.<br/> 21 Q. Okay. And have you seen those standards<br/> 22 in connection with your work in this case?<br/> 23 A. I have. I have not studied those in<br/> 24 detail, but I have seen at least portions of those<br/> 25 standards.</p>                         |
| <p style="text-align: right;">Page 91</p> <p>1 Q. But you would agree with me that an<br/> 2 interference fit could indeed attach two things<br/> 3 together, right?<br/> 4 A. Oh, certainly. Yes.<br/> 5 Q. In Paragraph 75, the first sentence says,<br/> 6 "In the context of smoke alarms, the mechanisms used<br/> 7 to create this type of mechanical connection are<br/> 8 well-known." Right?<br/> 9 A. Yes.<br/> 10 Q. And this type of mechanical connection<br/> 11 refers to the attachment mechanism that you quote in<br/> 12 Paragraph 74, right?<br/> 13 A. That's correct.<br/> 14 Q. And when you wrote the first sentence of<br/> 15 Paragraph 75, what time period are we talking about?<br/> 16 Well-known as of when?<br/> 17 A. Well, at least as of the priority date of<br/> 18 the patents, so in the 2003 timeframe.<br/> 19 Q. Okay. And is the basis for that<br/> 20 conclusion your review of the prior art cited on the<br/> 21 face of the patents-in-suit?<br/> 22 A. I think at least, in part, it is. My own<br/> 23 personal and professional experience is that that's a<br/> 24 common way to mount smoke alarms.<br/> 25 Q. And that's an interesting point there.</p>                                                                                                                                                    | <p style="text-align: right;">Page 93</p> <p>1 Q. And just so I'm clear about what you're<br/> 2 relying on to form your opinions here, did those<br/> 3 standards form any of the basis for the opinions<br/> 4 you're offering in this declaration?<br/> 5 A. No. They didn't.<br/> 6 Q. Okay. We talked before about Paragraph 75<br/> 7 talking about things being well-known.<br/> 8 And you said that that was as of the 2003<br/> 9 priority date, right?<br/> 10 A. Yes.<br/> 11 Q. In your mind, are those standards that<br/> 12 you've reviewed part of what was well-known as of the<br/> 13 2003 priority date?<br/> 14 A. I don't know that the standards I looked<br/> 15 at predated the priority date, so yeah. I just don't<br/> 16 know if they --<br/> 17 First of all, I didn't study them. I<br/> 18 maybe, at best gave a cursory review at this point.<br/> 19 And so I didn't rely on them, and I don't<br/> 20 know that they're -- that those standards predated<br/> 21 the priority date of the patent.<br/> 22 Q. Okay. In Paragraph 76, you again refer to<br/> 23 this "type of attachment." You see that?<br/> 24 A. Yes.<br/> 25 Q. And is it -- In Paragraph 76, are you</p> |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p style="text-align: right;">Page 94</p> <p>1 still talking about the attachment mechanism that<br/> 2 you're talking about for the first time in Paragraph<br/> 3 74?<br/> 4 A. Like I don't recall if it's the first time<br/> 5 I've mentioned it.<br/> 6 Q. That's fair enough.<br/> 7 A. But like, yeah, generally, we're talking<br/> 8 about attachment mechanisms that used ridges and<br/> 9 grooves, like a screw thread or maybe a screw thread<br/> 10 with no bleed to it. In other words, there's no<br/> 11 helical motion. You're just rotating it, but that<br/> 12 kind of a connection was commonly known.<br/> 13 Q. Okay. And in Paragraph 77, this is a --<br/> 14 this is where you're talking about a reattachment<br/> 15 prevention mechanism, right?<br/> 16 A. Yes.<br/> 17 Q. So in the second sentence, you say, "A<br/> 18 POSITA would also understand that the claimed<br/> 19 reattachment prevention mechanism would include<br/> 20 components that stop the relative twisting motion<br/> 21 from occurring, thus preventing reattachment."<br/> 22 Right?<br/> 23 A. Correct.<br/> 24 Q. And is that sentence also talking about<br/> 25 what a person of skill would have understood as of</p> | <p style="text-align: right;">Page 96</p> <p>1 complete record here.<br/> 2 So why don't you take a look at those<br/> 3 copies, and just let me know if the pictures all seem<br/> 4 like they showed up there.<br/> 5 A. Okay.<br/> 6 Q. And we'll just re-mark them.<br/> 7 A. Okay. And I don't think there's anything<br/> 8 that we've discussed so far in the deposition --<br/> 9 Q. No.<br/> 10 A. -- that would be affected by that; but<br/> 11 there, obviously, is some kind of printing error.<br/> 12 Yeah. The '158 looks complete.<br/> 13 (Discussion ensued off the record.)<br/> 14 (Exhibit 2 was re-marked for<br/> 15 identification.)<br/> 16 THE WITNESS: Yes. This looks to be a<br/> 17 complete version of the '455 patent so.<br/> 18 (Exhibit 3 was re-marked for<br/> 19 identification.)<br/> 20 THE WITNESS: All right. Thanks.<br/> 21 Q. (By Mr. Weed) So let's do this part on<br/> 22 the record. So we've now verified that the versions<br/> 23 of the two patents, which are Exhibits 2 and 3 that<br/> 24 are marked with the stickers, have all the pictures<br/> 25 in them, right?</p> |
| <p style="text-align: right;">Page 95</p> <p>1 the filing date of the patents-in-suit?<br/> 2 A. Yes. It is.<br/> 3 Q. Okay. So it's your view that a person of<br/> 4 skill in the art would have understood both<br/> 5 attachment mechanisms and reattachment prevention<br/> 6 mechanisms as of the time of filing of the<br/> 7 patents-in-suit?<br/> 8 A. Yes. At least a common way to attach and<br/> 9 prevent reattachment would be the attachment would be<br/> 10 this twisting motion, and stopping that from<br/> 11 occurring would be the prevention of reattachment,<br/> 12 and I think that was well-known.<br/> 13 Okay. If I could just pause --<br/> 14 Q. Yeah.<br/> 15 A. -- for a second. I have a concern, so<br/> 16 these are the copies of the patents that I brought<br/> 17 with me, the '158; and I didn't look through them<br/> 18 carefully enough. And Figure 3 was not produced in<br/> 19 full on the printer.<br/> 20 I can't tell you why this error would have<br/> 21 occurred, but Figure 9 is similarly missing.<br/> 22 Q. Uh-huh.<br/> 23 A. So just for the record --<br/> 24 Q. Yeah. Why don't we re-mark the ones that<br/> 25 I brought then, just so that we -- We want a</p>      | <p style="text-align: right;">Page 97</p> <p>1 A. That's correct.<br/> 2 Q. Okay.<br/> 3 A. And the earlier versions that I brought<br/> 4 into the deposition with me had some kind of a<br/> 5 printing error, at least on the figures. There were<br/> 6 parts of the figures that were missing.<br/> 7 Q. Okay. Good. I'm glad we caught it.<br/> 8 All right. Let's look back at your<br/> 9 declaration, Page 28, please.<br/> 10 A. Okay.<br/> 11 Q. Are you there?<br/> 12 A. I'm there. Yes.<br/> 13 Q. Now this section deals with a term --<br/> 14 claim term that says "Activate/Deactivate System,"<br/> 15 correct?<br/> 16 A. Correct.<br/> 17 Q. And these -- The claims that contain that<br/> 18 claim term do not include the word "mechanism"; is<br/> 19 that right?<br/> 20 A. That claim term doesn't. I would have to<br/> 21 refresh my memory of the --<br/> 22 So this is Claim 1, but this applies to<br/> 23 the dependent claims as well, so I'd have to refresh<br/> 24 my memory, but we're focused on the<br/> 25 activate/deactivate system here.</p>                                           |

25 (Pages 94 - 97)

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p style="text-align: right;">Page 98</p> <p>1 Q. And so in your opinion, are the terms<br/>2 system and mechanism coextensive?<br/>3 A. I don't think so. I think the word<br/>4 "system" is probably a little broader than the word<br/>5 "mechanism," in general.<br/>6 Q. And does your book talk at all about<br/>7 systems as compared to mechanisms?<br/>8 A. I would have to review it to see if<br/>9 there's a discussion of systems; but to my knowledge,<br/>10 there's no discussion in my text of system. I think<br/>11 I'd be a little surprised if there's not some<br/>12 description of a system in there, but I can't recall<br/>13 off the top of my head.<br/>14 Q. Is it fair to say that you're not relying<br/>15 on a discussion of the concept of systems from your<br/>16 textbook in offering the opinions about the<br/>17 activate/deactivate system claim term?<br/>18 A. Yes. That's correct.<br/>19 Q. Okay. In Paragraph 82, you mention what<br/>20 you call three relevant parts in Claim 1?<br/>21 A. Yes.<br/>22 Q. You see that?<br/>23 A. Yes. That's correct.<br/>24 Q. And those three parts are a first portion,<br/>25 a second portion, and cooperating features on the two</p>                | <p style="text-align: right;">Page 100</p> <p>1 features themselves may not have to move in defined<br/>2 relative motion, but they create some kind of defined<br/>3 relative motion?<br/>4 A. No. I don't think that's quite right.<br/>5 The cooperating features, one --<br/>6 So the cooperating features are<br/>7 interacting members of portions of the first portion<br/>8 and the second portion, and one of those two has to<br/>9 be moved. One of the first portion and the second<br/>10 portion must be moved, for example, twisted relative<br/>11 to the other one, so that's the relative motion that<br/>12 then further imparts a relative motion that's caused<br/>13 by the cooperating features to create the activate<br/>14 and deactivate.<br/>15 Q. Are a pair of opposite pole magnets<br/>16 cooperating features?<br/>17 A. I'd have to think more about that. It's<br/>18 something I haven't analyzed. I -- I just not --<br/>19 I'm not sure.<br/>20 Q. Okay. What about in the context of that<br/>21 reed-relay switch we talked about in Watson? Would<br/>22 those be cooperating features?<br/>23 A. I'd have to think more about that. At<br/>24 this point, I'm not sure.<br/>25 Q. You go on in Paragraph 84 to talk about</p> |
| <p style="text-align: right;">Page 99</p> <p>1 portions?<br/>2 A. Correct.<br/>3 Q. Are you relying on your text at all for<br/>4 its discussion of either portions or features?<br/>5 A. Not directly.<br/>6 Cooperating features, this is, again,<br/>7 referring to the kinds of mechanisms we see, cams and<br/>8 gears, where there is interaction between mating<br/>9 surfaces. That's really what is being described as<br/>10 cooperating features.<br/>11 So it's relevant. The textbook is<br/>12 relevant to that discussion; and how you would design<br/>13 such cooperating features to be most efficient, I<br/>14 think you could use the material in the textbook to<br/>15 get to that point.<br/>16 Q. Is it your opinion that cooperating<br/>17 features must have defined relative motion?<br/>18 A. I think in this case and in this art that<br/>19 the cooperating features do cause a defined relative<br/>20 motion. Whether that's always required, I would have<br/>21 to think more about that.<br/>22 I think the cases that I've looked at<br/>23 here, we are dealing with defined relative motion<br/>24 that's created by the cooperating features.<br/>25 Q. So are you saying that the cooperating</p> | <p style="text-align: right;">Page 101</p> <p>1 dependent Claims 5 and 6.<br/>2 You see that?<br/>3 A. I do. Yes.<br/>4 Q. And Claim 5 talks about a slider, right?<br/>5 A. It does. Yes.<br/>6 Q. And then Claim 6 depends on Claim 5,<br/>7 right?<br/>8 A. Correct.<br/>9 Q. And Claim 6 talks about a three-position<br/>10 switch connected to the slider, correct?<br/>11 A. That's correct.<br/>12 Q. Are you familiar with the concept of claim<br/>13 differentiation?<br/>14 A. I am. Yes.<br/>15 Q. And is it your understanding that in<br/>16 the -- under the concept of claim differentiation, a<br/>17 dependent claim is narrower than the independent<br/>18 claim from which it depends?<br/>19 A. That is generally my understanding. Yes.<br/>20 I don't know that is how I would characterize claim<br/>21 differentiation, but I would say a dependent claim<br/>22 always narrows the claim from which it depends.<br/>23 Q. So is it fair to say then Claim 1 of the<br/>24 '158 patent is not limited to a activate-deactivate<br/>25 system with a slider?</p>                                                                                                                                                                              |

26 (Pages 98 - 101)

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p style="text-align: right;">Page 102</p> <p>1 A. That's correct.</p> <p>2 Q. Why then is a narrowing limitation added</p> <p>3 by a dependent claim relevant to the interpretation</p> <p>4 of the broader claim term activate-deactivate system?</p> <p>5 A. Clearly, so the question here is there --</p> <p>6 does the term that we're talking about, in this case,</p> <p>7 the activate-deactivate system, does it connote</p> <p>8 sufficient -- sufficiently different -- definite</p> <p>9 structure or a class of structures, and I think the</p> <p>10 dependent claims can be informative there.</p> <p>11 Clearly, this is describing a specific</p> <p>12 type of that class of structures, one that uses a</p> <p>13 slider configured for one-way movement; and so that</p> <p>14 is a narrower version of the broader class of</p> <p>15 activate-deactivate structures.</p> <p>16 THE COURT REPORTER: Can I grab a seltzer.</p> <p>17 MR. WEED: Sure. It's probably been about</p> <p>18 an hour. Do you want a break?</p> <p>19 THE COURT REPORTER: Oh, sure. That would</p> <p>20 be great.</p> <p>21 (Recess from 12:31 p.m. to 12:44 p.m.)</p> <p>22 Q. (By Mr. Weed) All right. Just a few more</p> <p>23 questions before we wrap up here.</p> <p>24 If you'd go back in your declaration,</p> <p>25 which is Exhibit 1 to the deposition, and look at</p> | <p style="text-align: right;">Page 104</p> <p>1 It -- What you're describing sounds like something I</p> <p>2 have heard in the past, but I don't have any direct</p> <p>3 knowledge of that.</p> <p>4 Q. Okay. If you would, flip in your report</p> <p>5 to the section starting on Page 16.</p> <p>6 A. Okay. I'm there.</p> <p>7 Q. Okay. Which is about the '158 prosecution</p> <p>8 history?</p> <p>9 A. Yes.</p> <p>10 Q. And you -- I believe you said. We talked</p> <p>11 about earlier that one of the things you reviewed was</p> <p>12 the prosecution history of the two patents-in-suit,</p> <p>13 right?</p> <p>14 A. I did. Yes.</p> <p>15 Q. If you flip to the Page No. 18 of your</p> <p>16 report --</p> <p>17 A. Yes.</p> <p>18 Q. -- Paragraph 48, you are writing here</p> <p>19 about what the examiner did during examination of the</p> <p>20 '158 patent, right?</p> <p>21 A. Yes. That's correct.</p> <p>22 Q. Do you agree with the examiner's</p> <p>23 conclusion?</p> <p>24 A. If -- What I'm focusing on here is pretty</p> <p>25 narrow, so broadly, I haven't considered whether I</p>                                                                                             |
| <p style="text-align: right;">Page 103</p> <p>1 Paragraph 32, please.</p> <p>2 A. Yes. I'm there.</p> <p>3 Q. And for context, this Paragraph 32 shows</p> <p>4 up in the legal standards section of your report,</p> <p>5 right?</p> <p>6 A. Correct.</p> <p>7 Q. You describe here a rebuttable presumption</p> <p>8 that is overcome only when it is shown by a</p> <p>9 preponderance of the evidence that the claim fails to</p> <p>10 recite sufficiently definite structure, right?</p> <p>11 A. That's correct.</p> <p>12 Q. Do you have an understanding of what the</p> <p>13 preponderance of the evidence is?</p> <p>14 A. Yes.</p> <p>15 Q. What's your understanding?</p> <p>16 A. Preponderance means more than 50-50, so</p> <p>17 the balance of the evidence.</p> <p>18 Q. Have you ever heard the presumption you're</p> <p>19 talking about here described as not a strong</p> <p>20 presumption?</p> <p>21 A. I may have. I can't recall.</p> <p>22 Q. Okay. Are you familiar with any changes</p> <p>23 in the law about the presumption in the last ten</p> <p>24 years?</p> <p>25 A. That's probably more on the legal side.</p>                                                                                                                                                                                                                            | <p style="text-align: right;">Page 105</p> <p>1 agree or disagree; but I think that what I'm citing</p> <p>2 here I feel comfortable with. I would say I</p> <p>3 generally agree with it.</p> <p>4 Q. Okay. Do you agree with the examiner's</p> <p>5 statements about Claim 5 in your Paragraph 49?</p> <p>6 A. Yes. I do.</p> <p>7 Q. Do you agree with the examiner's</p> <p>8 statements in your Paragraph 50?</p> <p>9 A. Yeah. And I guess in all cases what I'm</p> <p>10 agreeing with is the examiner's understanding of what</p> <p>11 these different terms meant and what would be</p> <p>12 included with these -- covered by these terms.</p> <p>13 Q. Well, okay. So that's a good point of</p> <p>14 clarification.</p> <p>15 So what I'm asking you is: Do you agree</p> <p>16 with the examiner that Watson discloses the</p> <p>17 cooperating features in Paragraph 48?</p> <p>18 THE COURT REPORTER: In Paragraph 40?</p> <p>19 MR. WEED: 48.</p> <p>20 THE COURT REPORTER: Thank you.</p> <p>21 MR. KAZI: Object to the scope of the</p> <p>22 question.</p> <p>23 You can answer.</p> <p>24 THE WITNESS: I really haven't gone back</p> <p>25 and studied Watson to form my own conclusions</p> |

27 (Pages 102 - 105)

Veritext Legal Solutions

www.veritext.com

888-391-3376

FIRST ALERT & BRK EXHIBIT 1013

Page 27 of 70

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p style="text-align: right;">Page 106</p> <p>1 about whether Watson discloses these things. I</p> <p>2 guess I'm, in this case, citing to what the</p> <p>3 examiner understood from the file -- from the</p> <p>4 examination of the patent and the prior art.</p> <p>5 Q. (By Mr. Weed) Is it your opinion that</p> <p>6 cooperating features, as we cited in the claims, were</p> <p>7 known in the prior art?</p> <p>8 A. I think it's correct to say cooperating</p> <p>9 features were known in the prior art. Yes.</p> <p>10 Q. Is it your opinion that an</p> <p>11 activate-deactivate system as recited in the claims</p> <p>12 was known in the prior art, looking at Paragraph 49?</p> <p>13 A. Well, I probably need to think more about</p> <p>14 that; but at least versions of the --</p> <p>15 And here, we're talking about the</p> <p>16 activate-deactivate system; and certainly, the</p> <p>17 examiner felt that the activate-deactivate system,</p> <p>18 there were examples of that in the prior art.</p> <p>19 Q. Right. And do you feel that there are</p> <p>20 example of activate-deactivate systems in the prior</p> <p>21 art?</p> <p>22 A. Yeah. I have no reason to disagree with</p> <p>23 the examiner's statement here. I haven't really</p> <p>24 thought about it beyond that.</p> <p>25 Q. Well, isn't it your opinion here that a</p> | <p style="text-align: right;">Page 108</p> <p>1 mechanism as recited in the claims is something a</p> <p>2 person of ordinary skill in the art would have</p> <p>3 understood as of the filing date of the</p> <p>4 patents-in-suit, right?</p> <p>5 A. Yes. But that implied a class of</p> <p>6 structures that could serve as an activation</p> <p>7 mechanism. Yes.</p> <p>8 Q. And that class of structures already</p> <p>9 existed at that point, right?</p> <p>10 A. Yes. I agree.</p> <p>11 Q. Okay. And then in Paragraph 53, you say,</p> <p>12 thus, based on the statements in the file history,</p> <p>13 the examiner understood certain things, right?</p> <p>14 A. Yes.</p> <p>15 Q. You couched 53 in terms of what the</p> <p>16 examiner understood. But is it fair to say that you</p> <p>17 agree with what the examiner understood?</p> <p>18 A. To the extent that I've reviewed the file</p> <p>19 history, I think the examiner is correct that an</p> <p>20 activation mechanism can include a switch, for</p> <p>21 example, so I do agree with that.</p> <p>22 Q. And the reattachment prevention mechanism</p> <p>23 term, I think you addressed it in Paragraph 57,</p> <p>24 right?</p> <p>25 A. In Paragraph 57, I'm focused on the</p>                            |
| <p style="text-align: right;">Page 107</p> <p>1 person of skill in the art reading the phrase</p> <p>2 "activate-deactivate system" would know what it is?</p> <p>3 A. Yes. It's a class of structures --</p> <p>4 Q. And --</p> <p>5 A. -- that --</p> <p>6 Q. Sorry.</p> <p>7 A. Yeah. That I think then the examiner</p> <p>8 points to an example of such a structure.</p> <p>9 Q. And so if a person of skill in the art</p> <p>10 knows that it's a class of structures, doesn't that</p> <p>11 require them to know that those structures existed</p> <p>12 already?</p> <p>13 A. Yes. I guess I agree with that.</p> <p>14 Q. Okay. Do you agree with the examiner in</p> <p>15 respect to Paragraph 50 that an activation mechanism</p> <p>16 was something that was known in the prior art?</p> <p>17 A. Again, I have no reason to disagree with</p> <p>18 the examiner. He felt that the activating switch was</p> <p>19 an example of the activation mechanism; and to that</p> <p>20 extent, I agree that he understood what -- the</p> <p>21 activating mechanism could be a switch, so I do agree</p> <p>22 with that --</p> <p>23 Q. And --</p> <p>24 A. -- an activating switch.</p> <p>25 Q. -- so it's your opinion that an activation</p>                                                                                                                   | <p style="text-align: right;">Page 109</p> <p>1 prosecution history of the '455 --</p> <p>2 Q. Right.</p> <p>3 A. -- patent.</p> <p>4 Q. Right. And that's where you address the</p> <p>5 phrase "reattachment prevention mechanism" in the</p> <p>6 prosecution, right?</p> <p>7 A. Paragraph 57 is talking about a</p> <p>8 preliminary amendment where the applicant replaced</p> <p>9 terms that used the word "means" with terms that I</p> <p>10 believe are more structural.</p> <p>11 Q. And one of those terms that was replaced</p> <p>12 was the reattachment prevention mechanism term?</p> <p>13 A. That's correct. Yes.</p> <p>14 Q. Now I notice that in this section you</p> <p>15 don't point to the examiner identifying reattachment</p> <p>16 prevention mechanisms as known structures. Is that</p> <p>17 true?</p> <p>18 A. Yeah. I think that's true. The</p> <p>19 examiner -- This is a preliminary amendment that was</p> <p>20 made by the applicant, and I think that speaks for</p> <p>21 itself. The examiner didn't comment on that, as I</p> <p>22 recall, in '445 prosecution.</p> <p>23 Q. But it is nevertheless your opinion that a</p> <p>24 person of skill in the art would have known what a</p> <p>25 reattachment prevention mechanism was before the</p> |

28 (Pages 106 - 109)

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p style="text-align: right;">Page 110</p> <p>1 filing of the patents-in-suit?</p> <p>2 A. Yes. I think that class of structures</p> <p>3 would have been known to a person of skill in the</p> <p>4 art.</p> <p>5 Q. Okay. Can we go over to Paragraph 53 --</p> <p>6 sorry -- 63, please.</p> <p>7 A. Yes.</p> <p>8 Q. And here you have a quotation from some</p> <p>9 testimony that Dr. Pratt gave in a case between</p> <p>10 Barrette Outdoor Living and Fortress Iron, right?</p> <p>11 A. Yes. That's correct.</p> <p>12 Q. Did you locate this testimony, or did</p> <p>13 somebody provide it to you?</p> <p>14 A. Well, both. It was given to me to review,</p> <p>15 but I did review testimony. I didn't review the</p> <p>16 entire testimony, but I did review portions of it.</p> <p>17 Q. Okay. Do you know what the technology at</p> <p>18 issue was in the Barrette Outdoor Living case?</p> <p>19 A. I don't recall. I -- No. I don't</p> <p>20 remember.</p> <p>21 Q. Do you know if you looked at the patent</p> <p>22 that was being discussed in Dr. Pratt's deposition in</p> <p>23 that case?</p> <p>24 A. I do not recall looking at a patent.</p> <p>25 Q. Do you know if the patent in that case</p> | <p style="text-align: right;">Page 112</p> <p>1 relying on any particular publication to offer</p> <p>2 opinions about reattachment prevention mechanisms?</p> <p>3 A. That's correct.</p> <p>4 Q. Are you aware of any of your academic</p> <p>5 writings that touch on smoke or carbon monoxide</p> <p>6 alarms?</p> <p>7 A. In a general sense, yes. A lot of the</p> <p>8 sensor-based systems that I work on have sensors that</p> <p>9 look for -- like an optical sensor that looks for</p> <p>10 occlusion, which is the way -- one of the means to</p> <p>11 detect smoke, for example, that you reduce the</p> <p>12 transmission of light.</p> <p>13 So I have publications that talk about</p> <p>14 those kinds of sensors. Probably not particularly in</p> <p>15 the application of smoke alarm, though.</p> <p>16 Q. Okay. What about academic writings that</p> <p>17 talk about chemical sensors that would be used in,</p> <p>18 for example, the carbon monoxide alone?</p> <p>19 A. Again, I suspect that I can't tell you any</p> <p>20 particular publication; but I protect -- I suspect</p> <p>21 that carbon monoxide, again --</p> <p>22 All these are physics-based sensors that</p> <p>23 look for changes in resistance or changes in optical</p> <p>24 transmission; and so those kinds of sensors, I'm sure</p> <p>25 I've published and written about. Specifically with</p> |
| <p style="text-align: right;">Page 111</p> <p>1 involved sensors?</p> <p>2 A. I do not.</p> <p>3 Q. To your -- I haven't certainly read all</p> <p>4 of your academic publications.</p> <p>5 But are you aware of any academic writings</p> <p>6 you've done that discuss activate or deactivate</p> <p>7 mechanisms?</p> <p>8 A. I have hundreds of publications. I just</p> <p>9 wouldn't remember that.</p> <p>10 Q. Okay. You're certainly not relying on any</p> <p>11 such academic publications to offer your opinions</p> <p>12 here, correct?</p> <p>13 A. That's correct. My broad knowledge of the</p> <p>14 way things are activated and deactivated and</p> <p>15 assembled, that, I think, is all relevant but --</p> <p>16 And no specific publication in mind.</p> <p>17 Agreed.</p> <p>18 Q. Okay. What about for the concept of a</p> <p>19 reattachment prevention mechanism? Are you aware of</p> <p>20 any of your academic writings that discuss</p> <p>21 reattachment prevention mechanisms?</p> <p>22 A. I can't name any immediately; but if I</p> <p>23 look through them, there very well may be discussion</p> <p>24 of that in one of them.</p> <p>25 Q. But, again, as you sit here, you're not</p>  | <p style="text-align: right;">Page 113</p> <p>1 respect to a carbon monoxide safety alarm, for</p> <p>2 example, I don't think so.</p> <p>3 Q. All right. If you would, open the</p> <p>4 textbook up again one more time.</p> <p>5 I think we marked it as Exhibit 4, right?</p> <p>6 A. Yes. Correct.</p> <p>7 Q. Let's look at Page 1 again, please.</p> <p>8 A. Okay. I'm there.</p> <p>9 Q. We looked at the sentence that starts with</p> <p>10 mechanism in italics before. Do you remember that?</p> <p>11 A. I do. Yes.</p> <p>12 Q. And, again, just for the record, that</p> <p>13 sentence says mechanisms may be defined as that</p> <p>14 division of machine design which is concerned with</p> <p>15 the kinematic design of linkages, cams, gears, and</p> <p>16 gear trains, right?</p> <p>17 A. That's correct. It's the area of science</p> <p>18 that we broadly are talking about here.</p> <p>19 Q. The intention of this sentence is not to</p> <p>20 say mechanisms have to have linkages, cams, gears,</p> <p>21 and gear trains to be a mechanism, correct?</p> <p>22 A. Yeah. I agree with that. Correct.</p> <p>23 Q. Each of the -- Sorry.</p> <p>24 A. Yes. Correct.</p> <p>25 Q. Each of those four items is a type of</p>                                                                                                                                                    |

29 (Pages 110 - 113)

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p style="text-align: right;">Page 114</p> <p>1 mechanism, right?</p> <p>2 A. A cam by itself or a gear by itself, I</p> <p>3 probably wouldn't consider a mechanism; but these are</p> <p>4 at least components of mechanisms, so this is the</p> <p>5 general field of study of mechanisms.</p> <p>6 Q. Would you consider those four items --</p> <p>7 linkages, cams, gears, and gear trains -- to be</p> <p>8 classes of mechanisms?</p> <p>9 A. They're definitely components of -- I</p> <p>10 would consider it to be broadly a class of mechanisms</p> <p>11 that create, define relative motion.</p> <p>12 Q. Each one of those would be a class of</p> <p>13 mechanism, and each one would create defined relative</p> <p>14 motion, right?</p> <p>15 A. Taken in correct context, yes.</p> <p>16 So, again, a gear by itself doesn't create</p> <p>17 a defined motion. You have to have at least a pair</p> <p>18 of gears.</p> <p>19 Or a cam and following, those really are</p> <p>20 mechanically the same physical system. It's just the</p> <p>21 shape of the surfaces differ between the two.</p> <p>22 But taken with a cam and a follower or two</p> <p>23 gears in mesh, the same mechanical system, different</p> <p>24 surface profiles, those would be mechanisms.</p> <p>25 Q. Those would be classes of mechanisms,</p>                                                                     | <p style="text-align: right;">Page 116</p> <p>1 and follower.</p> <p>2 Q. In the twist-on embodiment we've been</p> <p>3 talking about today, would you consider that to be</p> <p>4 one of the four recited ideas in the sentence on Page</p> <p>5 1 that we've been looking at?</p> <p>6 A. Well, you used the word "ideas."</p> <p>7 Q. Yes. I didn't want to --</p> <p>8 Let me ask it this way. Is the twist-on</p> <p>9 mounting technique we've been talking about today a</p> <p>10 linkage?</p> <p>11 A. I wouldn't call it a linkage. I would</p> <p>12 call it a mechanism. It's a slots that engage, so</p> <p>13 you could call it a cam-type mechanism perhaps or a</p> <p>14 helical screw-type mechanism perhaps with zero pitch.</p> <p>15 Q. So a helical screw-type mechanism would be</p> <p>16 one type of mechanism that's not listed here on Page</p> <p>17 1, right?</p> <p>18 A. Well, I think, again, it's covered by cams</p> <p>19 because cams are devices that work using interaction</p> <p>20 of surfaces; and so, for example, if you'll look at</p> <p>21 Page 80 of my textbook --</p> <p>22 Q. I'm going to have take your word for it.</p> <p>23 A. Sorry.</p> <p>24 Q. No, no, no. Go ahead.</p> <p>25 A. I'll share it with you momentarily.</p>                                     |
| <p style="text-align: right;">Page 115</p> <p>1 right?</p> <p>2 A. I think you could say those are classes or</p> <p>3 subclasses within the broad field of mechanisms; but</p> <p>4 a person of skill in the art, for example, would know</p> <p>5 that a certain defined relative motion can be created</p> <p>6 using a linkage-based mechanism or a cam-based</p> <p>7 mechanism; and they're --</p> <p>8 While the systems, I wouldn't call them</p> <p>9 equivalent. A person of skill in the art would know</p> <p>10 that those are both part of a class of mechanisms</p> <p>11 that can be used to create defined relative motion,</p> <p>12 just as an example.</p> <p>13 Q. And in your opinion, do the claim terms</p> <p>14 that say the word "mechanism" specify which class of</p> <p>15 mechanisms must be used to achieve the recited</p> <p>16 function?</p> <p>17 A. Well, I would say it this way, that the</p> <p>18 terms that use the word "mechanism" -- Mechanism</p> <p>19 denotes at least or connotes some structure, and</p> <p>20 we're talking about the mechanical arts, and here are</p> <p>21 some examples of different physical structures that</p> <p>22 can all be classified as mechanisms.</p> <p>23 As it's used in the claim terms, I don't</p> <p>24 think it narrows it to be, for example, a particular</p> <p>25 type of linkage or a particular arrangement of a cam</p> | <p style="text-align: right;">Page 117</p> <p>1 Yeah. Page 80, I'm talking -- This is in</p> <p>2 the chapter on cams and the various arrangements of</p> <p>3 cam and follower configurations; and on Page 80,</p> <p>4 there is what's referred to as a cylindrical cam,</p> <p>5 which is a groove, in this case, a helical-type</p> <p>6 groove that mates with a projection on a follower;</p> <p>7 and so it's pretty similar to the way a twist-on</p> <p>8 mounting system would work, for example.</p> <p>9 Q. Okay. Are you familiar with other</p> <p>10 textbooks that sort of compete with your textbook,</p> <p>11 Exhibit 4?</p> <p>12 A. Oh, yes.</p> <p>13 Q. Which other ones are you aware of?</p> <p>14 A. Oh, there are a plethora of books in the</p> <p>15 subject area. Gary Kinzel wrote one, so I'm sorry.</p> <p>16 K-I-N-Z-E-L, Kinzel; and I think that was coauthored</p> <p>17 with Ken Waldron, W-A-L-D-R-O-N.</p> <p>18 There is a book by Uicker, U-I-C-K-E-R, I</p> <p>19 believe.</p> <p>20 There's a book by Martin.</p> <p>21 There is a popular book by Norton,</p> <p>22 N-O-R-T-O-N, in this general field; but there are</p> <p>23 quite a number of textbooks.</p> <p>24 I have a whole library of books that,</p> <p>25 generally, I think you could argue compete at least</p> |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p style="text-align: right;">Page 118</p> <p>1 in some market with this.</p> <p>2 Q. Okay. If you would go to Paragraph 87 of</p> <p>3 your declaration.</p> <p>4 A. Okay.</p> <p>5 Q. Your second sentence of that paragraph</p> <p>6 says, "But my analysis may continue, and I may</p> <p>7 acquire additional information and/or obtain</p> <p>8 supplemental insights that may result in added</p> <p>9 observations."</p> <p>10 Do you see that?</p> <p>11 A. I do.</p> <p>12 Q. Since you signed this document on December</p> <p>13 27th of 2022, have you had any added observations</p> <p>14 you'd like to articulate?</p> <p>15 A. I cannot think of any. I've learned a</p> <p>16 little more. I've spent a little more time on the</p> <p>17 case, but I don't think anything would change the</p> <p>18 opinions that are in this declaration at this point.</p> <p>19 Q. Okay. And is there anything that you're</p> <p>20 aware of in this declaration that you'd like to</p> <p>21 correct while we've got the record open or change?</p> <p>22 A. I can't think of even a typo that I've</p> <p>23 come across. There may be, but no. I think it -- I</p> <p>24 think it's correct and accurate and represents my</p> <p>25 opinion as of the date I signed it, and I think today</p> | <p style="text-align: right;">Page 120</p> <p style="text-align: center;">C E R T I F I C A T E</p> <p>1</p> <p>2</p> <p>3</p> <p>4 STATE OF GEORGIA:</p> <p>5 COUNTY OF FULTON:</p> <p>6</p> <p>7 I hereby certify the foregoing transcript</p> <p>8 was taken down, as stated in the caption, and</p> <p>9 the questions and answers thereto were reduced</p> <p>10 to typewriting under my direction; that the</p> <p>11 foregoing pages 1 through 119 represent a true,</p> <p>12 complete, and correct transcript of the evidence</p> <p>13 given upon said hearing, and I further certify</p> <p>14 that I am not of kin or counsel to the parties</p> <p>15 in the case; am not in the regular employ of</p> <p>16 counsel for any of said parties; nor am I in</p> <p>17 anywise interested in the result of said case.</p> <p>18 This, the 12th day of January, 2022.</p> <p>19</p> <p>20 <i>S. Julie Friedman</i><br/>S. JULIE FRIEDMAN, CCR-B-1476</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p> <p>25</p>                                                                                                                                                                                                                                                                                         |
| <p style="text-align: right;">Page 119</p> <p>1 as well.</p> <p>2 MR. WEED: Okay. I have no further</p> <p>3 questions.</p> <p>4 MR. KAZI: Okay. We're going to reserve</p> <p>5 the witness's ability to read, review, and sign</p> <p>6 the transcript; but we have no questions.</p> <p>7 THE COURT REPORTER: And so you're</p> <p>8 ordering, right?</p> <p>9 MR. WEED: Yes.</p> <p>10 (Discussion ensued off the record.)</p> <p>11 MR. WEED: Can I get just a rough today?</p> <p>12 THE COURT REPORTER: Yes.</p> <p>13 And, Amir, do you need a copy?</p> <p>14 MR. KAZI: Yes.</p> <p>15 (Whereupon, the deposition was concluded</p> <p>16 at 1:07 p.m.)</p> <p>17</p> <p>18</p> <p>19</p> <p>20</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p> <p>25</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <p style="text-align: right;">Page 121</p> <p>1 Veritext Legal Solutions</p> <p>2 1100 Superior Ave</p> <p>3 Suite 1820</p> <p>4 Cleveland, Ohio 44114</p> <p>5 Phone: 216-523-1313</p> <p>6</p> <p>7 January 19, 2023</p> <p>8 To: Aamir Kazi, Esq.</p> <p>9 Case Name: Walter Kidde Portable Equipment Inc. v. First Alert, Inc.,</p> <p>10 et al.</p> <p>11 Veritext Reference Number: 5647155</p> <p>12 Witness: Charles Frederick Reinholtz, Ph.D.</p> <p>13 Deposition Date: 1/6/2023</p> <p>14</p> <p>15 Dear Sir/Madam:</p> <p>16</p> <p>17 Enclosed please find a deposition transcript. Please have the witness</p> <p>18 review the transcript and note any changes or corrections on the</p> <p>19 included errata sheet, indicating the page, line number, change, and</p> <p>20 the reason for the change. Have the witness' signature notarized and</p> <p>21 forward the completed page(s) back to us at the Production address</p> <p>22 shown</p> <p>23 above, or email to production-midwest@veritext.com.</p> <p>24</p> <p>25 If the errata is not returned within thirty days of your receipt of</p> <p>26 this letter, the reading and signing will be deemed waived.</p> <p>27</p> <p>28 Sincerely,</p> <p>29 Production Department</p> <p>30</p> <p>31 NO NOTARY REQUIRED IN CA</p> |

31 (Pages 118 - 121)

Veritext Legal Solutions

www.veritext.com

888-391-3376

FIRST ALERT & BRK EXHIBIT 1013

Page 31 of 70

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div style="text-align: right; font-weight: bold;">Page 122</div> <p>1 DEPOSITION REVIEW<br/>CERTIFICATION OF WITNESS</p> <p>2</p> <p>3 ASSIGNMENT REFERENCE NO: 5647155<br/>CASE NAME: Walter Kidde Portable Equipment Inc. v. First<br/>Alert, Inc., et al.<br/>DATE OF DEPOSITION: 1/6/2023<br/>WITNESS' NAME: Charles Frederick Reinholtz, Ph.D.<br/>In accordance with the Rules of Civil<br/>Procedure, I have read the entire transcript of<br/>my testimony or it has been read to me.<br/>I have made no changes to the testimony<br/>as transcribed by the court reporter.</p> <p>8</p> <p>9 Date _____ Charles Frederick Reinholtz, Ph.D.<br/>10 Sworn to and subscribed before me, a<br/>11 Notary Public in and for the State and County,<br/>the referenced witness did personally appear<br/>and acknowledge that:</p> <p>12 They have read the transcript;<br/>13 They signed the foregoing Sworn<br/>Statement; and<br/>14 Their execution of this Statement is of<br/>their free act and deed.</p> <p>15 I have affixed my name and official seal<br/>16 this _____ day of _____, 20____.</p> <p>17 _____<br/>18 Notary Public<br/>19 _____<br/>Commission Expiration Date</p> <p>20<br/>21<br/>22<br/>23<br/>24<br/>25</p>                                                                                                                                                                                                                                                                                                                                                                                                 | <div style="text-align: right; font-weight: bold;">Page 124</div> <p>1 ERRATA SHEET<br/>VERITEXT LEGAL SOLUTIONS MIDWEST<br/>2 ASSIGNMENT NO: 5647155<br/>3 PAGE/LINE(S) / CHANGE /REASON</p> <p>4 _____<br/>5 _____<br/>6 _____<br/>7 _____<br/>8 _____<br/>9 _____<br/>10 _____<br/>11 _____<br/>12 _____<br/>13 _____<br/>14 _____<br/>15 _____<br/>16 _____<br/>17 _____<br/>18 _____<br/>19 _____</p> <p>20 Date _____ Charles Frederick Reinholtz, Ph.D.<br/>21 SUBSCRIBED AND SWORN TO BEFORE ME THIS _____<br/>22 DAY OF _____, 20____ .<br/>23 _____<br/>24 Notary Public<br/>25 _____<br/>Commission Expiration Date</p> |
| <div style="text-align: right; font-weight: bold;">Page 123</div> <p>1 DEPOSITION REVIEW<br/>CERTIFICATION OF WITNESS</p> <p>2</p> <p>3 ASSIGNMENT REFERENCE NO: 5647155<br/>CASE NAME: Walter Kidde Portable Equipment Inc. v. First<br/>Alert, Inc., et al.<br/>DATE OF DEPOSITION: 1/6/2023<br/>WITNESS' NAME: Charles Frederick Reinholtz, Ph.D.<br/>In accordance with the Rules of Civil<br/>Procedure, I have read the entire transcript of<br/>my testimony or it has been read to me.<br/>I have listed my changes on the attached<br/>Errata Sheet, listing page and line numbers as<br/>well as the reason(s) for the change(s).<br/>I request that these changes be entered<br/>as part of the record of my testimony.</p> <p>10 I have executed the Errata Sheet, as well<br/>11 as this Certificate, and request and authorize<br/>12 that both be appended to the transcript of my<br/>testimony and be incorporated therein.</p> <p>13 _____<br/>14 Date _____ Charles Frederick Reinholtz, Ph.D.<br/>Sworn to and subscribed before me, a<br/>15 Notary Public in and for the State and County,<br/>the referenced witness did personally appear<br/>and acknowledge that:</p> <p>16 They have read the transcript;<br/>17 They have listed all of their corrections<br/>18 in the appended Errata Sheet;<br/>19 They signed the foregoing Sworn<br/>Statement; and<br/>20 Their execution of this Statement is of<br/>their free act and deed.<br/>21 I have affixed my name and official seal<br/>22 this _____ day of _____, 20____.</p> <p>23 _____<br/>24 Notary Public<br/>25 _____<br/>Commission Expiration Date</p> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

32 (Pages 122 - 124)

Veritext Legal Solutions

www.veritext.com

888-391-3376

FIRST ALERT & BRK EXHIBIT 1013

Page 32 of 70

|                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                             |                                                                                                                                                                                                                     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| &                                                                                                                                                                                                                                                                                                                                                         | 1.14. 39:10,16                                                                                                                                                                                                                                                                                                                                 | 158 11:7 12:9                                                                                                                                                                               | 2023 1:16                                                                                                                                                                                                           |
| & 2:3 16:11,21<br>16:22 24:3                                                                                                                                                                                                                                                                                                                              | 1.2 35:8,22<br>36:20                                                                                                                                                                                                                                                                                                                           | 52:8 95:17<br>96:12 101:24<br>104:7,20                                                                                                                                                      | 121:4                                                                                                                                                                                                               |
| 0                                                                                                                                                                                                                                                                                                                                                         | 1.2. 35:8 36:1                                                                                                                                                                                                                                                                                                                                 | 16 29:13 75:16                                                                                                                                                                              | 21 34:17 72:25<br>80:14                                                                                                                                                                                             |
| 0910 3:16<br>60:21 63:8,18<br>65:6,10 69:17<br>0910/0910ca<br>62:12                                                                                                                                                                                                                                                                                       | 1.29 36:21<br>1.2a 38:6<br>1.2b 38:11<br>1.3 39:14<br>1.4 39:14<br>1/6/2023 121:9<br>122:3 123:3                                                                                                                                                                                                                                               | 104:5<br>16417 120:20<br>18 104:15<br>1820 121:2<br>19 33:6 76:23<br>77:5 121:4<br>1957 34:7<br>1960s 33:6<br>1:07 119:16                                                                   | 216-523-1313<br>121:3<br>21st 1:19 2:4<br>22 21:6 75:14<br>23 53:6<br>236 4:19<br>24 8:9 51:13<br>52:1<br>25 60:14<br>25th 21:16<br>26 82:18<br>26th 21:16<br>27th 118:13<br>28 34:16 97:9<br>29 34:16<br>2nd 15:14 |
| 1                                                                                                                                                                                                                                                                                                                                                         | 10 29:6 67:11<br>10-17-06 3:10<br>100 74:7<br>102 75:13,18<br>104 75:15,18<br>10:09 1:17<br>11-26-96 3:17<br>110 76:20<br>1100 121:1<br>1180 1:20 2:4<br>119 120:11<br>11:19 59:15<br>11:31 59:15<br>12 3:8,10,12<br>37:21,22 52:22<br>52:24<br>12-27-22 3:8<br>12:31 102:21<br>12:44 102:21<br>12a 76:5<br>12th 120:18<br>1476 1:24<br>120:20 | 2                                                                                                                                                                                           | 3                                                                                                                                                                                                                   |
| 1 3:8,19 11:13<br>11:14,23 12:1<br>12:8,17,18,19<br>23:21 35:8<br>36:3,5,5 37:10<br>37:20 40:4<br>41:20 48:12<br>55:14,25 56:23<br>60:14 97:22<br>98:20 101:23<br>102:25 113:7<br>116:5,17<br>120:11<br>1.1 36:8 37:11<br>37:18 55:16<br>56:3<br>1.10 38:19<br>1.11 38:21<br>1.12 37:18<br>1.13 39:10,16<br>39:19<br>1.13. 40:9<br>1.14 40:18,18<br>40:19 | 2 3:10 11:12,23<br>12:10,12 15:7<br>23:1,11,16<br>25:25 26:6<br>40:8 41:20<br>75:2 96:14,23<br>20 5:3 15:9<br>21:22 22:19<br>73:1 122:16<br>123:22 124:22<br>2003 61:6,17<br>91:18 92:5,10<br>93:8,13<br>2009 61:2,15<br>2017 13:16,20<br>2021 15:20<br>2022 5:12<br>15:10,15,22<br>21:11,16<br>118:13 120:18                                  | 3 3:12,19 11:24<br>12:14,15 15:7<br>23:1,11,16<br>25:25 26:6<br>42:2,6 56:4,6<br>56:11 95:18<br>96:18,23<br>30 12:24 34:16<br>30309 2:5<br>312.781.7166<br>2:11<br>32 103:1,3<br>32169 4:21 |                                                                                                                                                                                                                     |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>33</b> 3:14 13:6,8<br><b>3300</b> 2:9<br><b>3rd</b> 15:14<br><b>4</b><br><b>4</b> 3:4,14,20<br>29:5 30:1<br>33:16,18 40:8<br>43:1,11 46:22<br>73:5 75:13<br>76:3,19 113:5<br>117:11<br><b>4-28-09</b> 3:12<br><b>40</b> 105:18<br><b>404.724.2811</b><br>2:5<br><b>404.892.5002</b><br>2:6<br><b>44114</b> 121:2<br><b>445</b> 11:8 12:13<br>52:8 109:22<br><b>455</b> 96:17<br>109:1<br><b>48</b> 104:18<br>105:17,19<br><b>49</b> 105:5<br>106:12<br><b>5</b><br><b>5</b> 3:15,19 35:17<br>46:11,22 59:16<br>59:20,23 60:17<br>60:24 61:15<br>62:3,9 63:14<br>76:23 77:5<br>101:1,4,6 | 105:5<br><b>5,395,168</b> 78:18<br><b>5,578,996</b> 3:17<br>70:22<br><b>50</b> 4:25 105:8<br>107:15<br><b>50-50</b> 10:13<br>103:16<br><b>53</b> 108:11,15<br>110:5<br><b>55</b> 13:4,11<br><b>56</b> 76:3<br><b>5647155</b> 121:8<br>122:2 123:2<br>124:2<br><b>566</b> 1:7<br><b>57</b> 108:23,25<br>109:7<br><b>58</b> 73:6<br><b>59</b> 3:15 14:24<br>73:7 75:12<br><b>5th</b> 20:18<br><b>6</b><br><b>6</b> 1:16 3:17,19<br>29:13 47:15<br>48:6 70:14,15<br>70:19 74:6,6,8<br>76:6 101:1,6,9<br><b>6,433,700</b> 77:16<br><b>60</b> 4:25 13:4,7<br>13:8,11 75:12<br><b>60602</b> 2:10<br><b>62</b> 31:20 35:7<br>53:6 57:16 | <b>63</b> 110:6<br><b>66</b> 76:19<br><b>67</b> 60:14,18<br><b>69</b> 71:20 77:9<br>77:11<br><b>6:22</b> 1:7 11:17<br><b>6th</b> 20:18<br><b>7</b><br><b>7</b> 21:23 48:4,8<br>48:12 76:21<br><b>7,123,158</b> 3:10<br><b>7,525,445</b> 3:12<br><b>70</b> 2:10 3:17<br>79:18 81:12<br><b>73</b> 82:22 90:3,9<br><b>74</b> 84:5,14<br>91:12 94:3<br><b>75</b> 91:5,15 93:6<br><b>76</b> 93:22,25<br><b>77</b> 94:13<br><b>7th</b> 20:18<br><b>8</b><br><b>8</b> 22:6 24:6<br>76:24<br><b>80</b> 116:21<br>117:1,3<br><b>82</b> 98:19<br><b>84</b> 100:25<br><b>87</b> 118:2<br><b>9</b><br><b>9</b> 76:6,24 95:21 | <b>a</b><br><b>a.m.</b> 1:17 59:15<br>59:15<br><b>aamir</b> 2:3<br>35:11 121:5<br><b>abdulqader</b> 2:3<br><b>ability</b> 53:17<br>54:19 119:5<br><b>able</b> 33:14<br>68:14,16 69:18<br>69:22 70:3,5<br><b>above</b> 81:13<br>121:18<br><b>absolutely</b><br>88:11<br><b>abstract</b> 72:13<br><b>academia</b> 49:7<br><b>academic</b> 8:4<br>18:1 49:10<br>111:4,5,11,20<br>112:4,16<br><b>accelerations</b><br>58:23<br><b>acceptable</b> 54:4<br>56:10<br><b>accordance</b><br>122:5 123:5<br><b>account</b> 58:16<br><b>accounted</b><br>54:22<br><b>accurate</b> 32:14<br>118:24<br><b>accused</b> 10:8<br>14:14 25:18 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>achieve</b> 115:15<br><b>acknowledge</b><br>122:11 123:16<br><b>acquire</b> 118:7<br><b>act</b> 122:14<br>123:20<br><b>action</b> 1:6<br><b>activate</b> 63:19<br>64:8 66:18<br>75:19,23 78:14<br>80:21 97:14,25<br>98:17 100:13<br>101:24 102:4,7<br>102:15 106:11<br>106:16,17,20<br>107:2 111:6<br><b>activated</b> 69:19<br>111:14<br><b>activates</b> 64:11<br><b>activating</b><br>76:20,25 77:6<br>107:18,21,24<br><b>activation</b> 50:5<br>63:5,9,25<br>65:12,16,20,25<br>66:7,25 72:4<br>72:10,13 76:5<br>76:10,14 77:22<br>78:1,8,11<br>80:23,25 81:7<br>81:21 107:15<br>107:19,25<br>108:6,20<br><b>actual</b> 22:6 | <b>actually</b> 14:14<br>20:25 33:13<br>34:12 39:24<br>56:6 85:12,21<br>88:15 89:24<br><b>actuation</b> 79:14<br><b>ada</b> 1:7<br><b>added</b> 33:10<br>48:19 51:9<br>52:25 102:2<br>118:8,13<br><b>addition</b> 81:19<br><b>additional</b><br>76:14 118:7<br><b>address</b> 4:18<br>109:4 121:16<br><b>addressed</b><br>108:23<br><b>adhesives</b><br>84:20 85:1,19<br><b>advantages</b><br>43:9<br><b>adverse</b> 18:6<br><b>affect</b> 26:10,14<br>38:1 61:7<br><b>affected</b> 96:10<br><b>affecting</b> 57:2<br><b>affects</b> 46:20<br><b>affixed</b> 122:15<br>123:21<br><b>agency</b> 18:24<br><b>agent</b> 9:23<br><b>agnostic</b> 27:21<br><b>ago</b> 9:9 20:18<br>32:20,25 33:2 | 41:20 49:3<br><b>agree</b> 54:3,6<br>76:8 91:1<br>104:22 105:1,3<br>105:4,7,15<br>107:13,14,20<br>107:21 108:10<br>108:17,21<br>113:22<br><b>agreed</b> 111:17<br><b>agreeing</b><br>105:10<br><b>agreement</b><br>20:17,20 24:21<br><b>ah</b> 73:9<br><b>ahead</b> 11:22<br>116:24<br><b>aided</b> 31:9<br><b>al</b> 121:7 122:3<br>123:3<br><b>alarm</b> 3:10,12<br>3:16 24:17<br>54:8 62:12<br>63:1,4,18 64:5<br>65:11 66:4,19<br>66:20,23 67:15<br>67:22,23 68:6<br>68:7,10,13,14<br>69:1,4,18 83:8<br>84:10,14,20<br>85:15,21,22<br>86:15,21 87:12<br>87:13 88:13<br>89:11 112:15<br>113:1 | <b>alarm's</b> 67:11<br><b>alarms</b> 19:21<br>19:22 20:6,13<br>24:22,25 25:1<br>25:2,9 27:13<br>27:24 69:13<br>83:2,23 84:15<br>84:16 91:6,24<br>92:4,9,19<br>112:6<br><b>alert</b> 1:8 18:13<br>25:13 121:6<br>122:3 123:3<br><b>algorithms</b><br>31:12<br><b>allegedly</b> 26:5<br><b>allows</b> 85:15<br>88:10<br><b>amendment</b><br>109:8,19<br><b>amir</b> 119:13<br><b>amount</b> 54:4<br>55:21 56:1<br>90:2<br><b>analysis</b> 39:22<br>44:17 57:2<br>58:13,14,20<br>71:15 118:6<br><b>analyze</b> 49:4<br><b>analyzed</b> 78:12<br>80:2 100:18<br><b>angles</b> 47:24<br><b>answer</b> 40:10<br>70:1 89:18<br>90:9,10 105:23 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>answers</b> 74:21<br>120:9<br><b>anybody</b> 23:19<br>49:9<br><b>anymore</b> 21:10<br><b>anywise</b> 120:17<br><b>apart</b> 71:4<br><b>apologies</b> 39:17<br><b>apologize</b> 39:15<br><b>appear</b> 72:16<br>122:11 123:15<br><b>appearances</b><br>2:1<br><b>appears</b> 74:23<br><b>appended</b><br>123:11,18<br><b>applicant</b> 109:8<br>109:20<br><b>application</b><br>23:11 46:21<br>54:5 55:5 56:9<br>56:12 112:15<br><b>applications</b><br>55:22<br><b>applied</b> 53:22<br><b>applies</b> 97:22<br><b>apply</b> 19:19<br><b>appropriate</b><br>20:23 43:24<br>51:10<br><b>approved</b><br>62:13<br><b>approximately</b><br>4:24 | <b>area</b> 37:1<br>113:17 117:15<br><b>argue</b> 117:25<br><b>arrangement</b><br>42:13,16 43:24<br>45:21 75:3<br>115:25<br><b>arrangements</b><br>117:2<br><b>art</b> 27:6,7,20,22<br>28:1 36:22<br>45:12 50:24<br>51:11 61:12,17<br>61:21 65:19,24<br>66:19 67:6<br>68:6,21 74:2<br>78:5,9 79:17<br>82:23,23,25<br>83:4,13,20,20<br>84:13,14,18<br>88:5 91:20<br>95:4 99:18<br>106:4,7,9,12,18<br>106:21 107:1,9<br>107:16 108:2<br>109:24 110:4<br>115:4,9<br><b>articulate</b><br>118:14<br><b>arts</b> 32:16,21<br>37:2 89:22<br>115:20<br><b>aside</b> 70:12<br>77:10 | <b>asked</b> 13:21<br>45:2 70:7<br><b>asking</b> 32:22<br>33:25 34:4<br>55:11 60:6<br>105:15<br><b>asme</b> 47:10<br><b>aspect</b> 55:7<br><b>assembled</b><br>111:15<br><b>assembling</b><br>89:22<br><b>assertion</b> 8:25<br><b>assignee</b> 71:2<br><b>assignment</b><br>8:15 122:2<br>123:2 124:2<br><b>assisi</b> 4:19,20<br><b>assume</b> 34:20<br>75:3<br><b>assumes</b> 56:24<br>58:9,10<br><b>assuming</b> 88:22<br><b>assumption</b><br>57:1<br><b>assumptions</b><br>57:6<br><b>astm</b> 47:12<br><b>atlanta</b> 1:20<br>2:5<br><b>attach</b> 84:20<br>91:2 95:8<br><b>attached</b> 3:20<br>36:12 63:19<br>123:7 | <b>attaching</b> 83:23<br><b>attachment</b><br>10:19 13:3<br>84:2,6 87:6,14<br>91:11 92:10,15<br>93:23 94:1,8<br>95:5,9<br><b>attachments</b><br>10:16 11:9<br>26:22<br><b>attempt</b> 68:7<br><b>attorney</b> 14:21<br><b>attorneys</b> 9:5<br>9:17 24:2<br><b>attributable</b><br>25:2<br><b>audience</b> 62:3<br><b>august</b> 15:7,14<br>61:6<br><b>author</b> 30:12<br>30:17,18<br><b>authorize</b><br>123:11<br><b>automatic</b> 63:5<br>63:8,21,24<br><b>automatically</b><br>63:18 64:11<br>69:19<br><b>autuoro</b> 17:8<br><b>available</b> 31:10<br><b>ave</b> 121:1<br><b>aware</b> 111:5,19<br>112:4 117:13<br>118:20 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                                                                                                                                                                  |                                                                                                                                |                                                                                                                                                                         |                                                                    |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|
| <b>axis</b> 89:9                                                                                                                                                                                 | <b>basic</b> 53:22                                                                                                             | <b>best</b> 93:18                                                                                                                                                       | <b>books</b> 117:14                                                |
| <b>b</b>                                                                                                                                                                                         | <b>basically</b> 66:5                                                                                                          | <b>better</b> 22:14                                                                                                                                                     | 117:24                                                             |
| <b>b</b> 1:24 7:25,25<br>120:20                                                                                                                                                                  | <b>basis</b> 71:5<br>83:12 91:19<br>93:3                                                                                       | <b>bevel</b> 47:16                                                                                                                                                      | <b>bottom</b> 34:14<br>67:7                                        |
| <b>b2</b> 3:10,12                                                                                                                                                                                | <b>batteries</b> 67:16                                                                                                         | <b>beveled</b> 47:25                                                                                                                                                    | <b>bracket</b> 63:19<br>66:4,21,22,22                              |
| <b>back</b> 9:25<br>33:20 36:2<br>41:13 53:6<br>59:17 60:1<br>61:1 62:9<br>63:13 67:25<br>68:19 69:10<br>72:8 73:13<br>74:10 77:1,9<br>77:11 80:14<br>85:7 86:22<br>97:8 102:24<br>105:24 121:16 | <b>battery</b> 3:11,13<br>3:16 65:7,11                                                                                         | <b>beyond</b> 106:24                                                                                                                                                    | 68:1 69:2,4,7<br>84:9 85:8,15<br>86:14,21 87:13<br>88:13,14,15,16  |
| <b>background</b><br>9:21                                                                                                                                                                        | <b>beach</b> 4:20                                                                                                              | <b>bicycle</b> 55:21                                                                                                                                                    | <b>brackets</b> 83:24                                              |
| <b>balance</b> 103:17                                                                                                                                                                            | <b>bears</b> 60:25<br>61:1                                                                                                     | <b>binary</b> 38:22                                                                                                                                                     | <b>branded</b> 25:13                                               |
| <b>ballpark</b> 4:25<br>10:7                                                                                                                                                                     | <b>began</b> 15:9,10<br>15:19 21:8<br>77:2                                                                                     | <b>bit</b> 8:14 33:20<br>41:14,20 85:19<br>88:14                                                                                                                        | <b>brands</b> 1:8<br>18:13 71:2                                    |
| <b>bar</b> 39:20 41:7<br>41:8                                                                                                                                                                    | <b>beginning</b> 13:9<br>21:18 76:1                                                                                            | <b>bleed</b> 94:10                                                                                                                                                      | <b>break</b> 53:5<br>59:11 102:18                                  |
| <b>barrette</b> 110:10<br>110:18                                                                                                                                                                 | <b>begins</b> 13:3                                                                                                             | <b>block</b> 68:12                                                                                                                                                      | <b>breaking</b> 68:19<br>69:9 84:1                                 |
| <b>base</b> 75:16<br>84:20 85:9                                                                                                                                                                  | <b>behalf</b> 2:2,7                                                                                                            | <b>blocking</b> 90:4                                                                                                                                                    | <b>brief</b> 52:22<br>75:1                                         |
| <b>based</b> 51:8 52:2<br>52:5,15,19,23<br>58:6 67:2 87:6<br>108:12 112:8<br>112:22 115:6,6                                                                                                      | <b>belanger</b> 15:1,4<br>16:10                                                                                                | <b>bodies</b> 32:1<br>45:24,25 53:10<br>53:15,20 57:22<br>58:5,10                                                                                                       | <b>briefing</b> 12:19                                              |
|                                                                                                                                                                                                  | <b>believe</b> 7:16<br>20:7 24:15<br>26:18 33:6<br>35:17 50:23<br>60:19 63:10<br>66:10 68:16<br>71:3,6 104:10<br>109:10 117:19 | <b>body</b> 22:19<br>53:13,14 59:5<br>75:15                                                                                                                             | <b>brk</b> 1:8 18:13<br>71:2                                       |
|                                                                                                                                                                                                  | <b>belt</b> 40:19                                                                                                              | <b>bold</b> 14:8                                                                                                                                                        | <b>broad</b> 74:1<br>111:13 115:3                                  |
|                                                                                                                                                                                                  | <b>bench</b> 7:1                                                                                                               | <b>boldface</b> 14:5<br>65:2                                                                                                                                            | <b>broader</b> 26:13<br>27:14 37:1<br>42:1 44:1 98:4<br>102:4,14   |
|                                                                                                                                                                                                  | <b>benefits</b> 60:2                                                                                                           | <b>book</b> 3:14<br>29:14,23 30:10<br>32:7,23,23<br>33:14 35:21<br>37:7 41:3,11<br>49:21,24 50:5<br>50:7,10,13<br>51:20 53:10<br>55:6 57:12<br>98:6 117:18,20<br>117:21 | <b>broadly</b> 27:9<br>27:24 44:9<br>74:19 104:25<br>113:18 114:10 |
|                                                                                                                                                                                                  | <b>benjamin</b> 2:9<br>3:20                                                                                                    |                                                                                                                                                                         | <b>broke</b> 69:3                                                  |
|                                                                                                                                                                                                  | <b>benjamin.weed</b><br>2:11                                                                                                   |                                                                                                                                                                         |                                                                    |

|                        |                        |                       |                         |
|------------------------|------------------------|-----------------------|-------------------------|
| <b>broken</b> 69:15    | 45:8,16,24             | 15:2,4,6,9,19         | <b>caused</b> 100:12    |
| <b>brought</b> 75:18   | 46:9 47:20             | 16:10,10 17:6         | <b>causes</b> 64:7      |
| 95:16,25 97:3          | 54:8,21,23             | 17:9,10,15            | 66:25 68:11             |
| <b>bullet</b> 22:5,17  | 114:2,19,22            | 19:16,21 20:3         | 75:22                   |
| 22:22 24:5             | 115:6,25               | 20:5,10,12,15         | <b>ccr</b> 1:24 120:20  |
| <b>bump</b> 58:1       | 116:13 117:3,4         | 20:21 21:4            | <b>certain</b> 19:11    |
| <b>burden</b> 46:17    | <b>cams</b> 36:15      | 22:18 24:14,18        | 22:9 25:20,21           |
| <b>c</b>               | 42:7 99:7              | 25:15,18,23           | 47:1 48:14              |
| <b>c</b> 4:11,11 30:20 | 113:15,20              | 26:5,16,20            | 69:20 70:2              |
| 82:18 117:18           | 114:7 116:18           | 27:3,10 28:24         | 108:13 115:5            |
| 120:1,1                | 116:19 117:2           | 31:25 44:23           | <b>certainly</b> 17:24  |
| <b>ca</b> 121:25       | <b>capacities</b>      | 47:9 60:5             | 20:5 35:15              |
| <b>cable</b> 56:7,20   | 18:25 19:3             | 66:10 69:14           | 39:11 55:25             |
| <b>cad</b> 9:21        | <b>capacity</b> 17:25  | 70:10 71:1            | 91:4 92:10              |
| <b>calculate</b> 40:21 | <b>capital</b> 31:24   | 86:9 89:6 92:4        | 106:16 111:3            |
| <b>call</b> 33:15 39:2 | <b>caption</b> 120:8   | 92:22 99:18           | 111:10                  |
| 39:4 42:17             | <b>car</b> 39:25 40:2  | 102:6 106:2           | <b>certainty</b> 71:17  |
| 44:7,8 45:3            | 40:3 54:9,18           | 110:9,18,23,25        | <b>certificate</b>      |
| 98:20 115:8            | 58:1                   | 117:5 118:17          | 123:11                  |
| 116:11,12,13           | <b>carbon</b> 25:11    | 120:15,17             | <b>certification</b>    |
| <b>called</b> 7:23,24  | 112:5,18,21            | 121:6 122:3           | 122:1 123:1             |
| 8:15 11:13             | 113:1                  | 123:3                 | <b>certify</b> 120:7,13 |
| 14:4 16:4              | <b>career</b> 7:7      | <b>cases</b> 5:24 7:8 | <b>cetera</b> 11:17     |
| 29:14 36:8             | <b>careful</b> 9:2     | 7:11,12 14:12         | <b>chain</b> 40:20      |
| 37:13 42:6,20          | 50:15                  | 14:13 16:17,18        | <b>chance</b> 51:16     |
| 43:2,9,20              | <b>carefully</b> 95:18 | 16:20,25 17:7         | <b>change</b> 32:18     |
| 47:15 59:25            | <b>carolina</b> 8:16   | 47:1 54:11            | 118:17,21               |
| 78:25 82:1             | <b>carpal</b> 7:23 8:8 | 57:8 88:4             | 121:14,15               |
| 90:11                  | 9:19                   | 99:22 105:9           | 123:8 124:3             |
| <b>cam</b> 41:8 42:9   | <b>carrier</b> 17:22   | <b>casually</b> 70:4  | <b>changes</b> 30:5     |
| 42:10,11,12,14         | 18:1,7                 | <b>catalog</b> 10:10  | 34:25 103:22            |
| 42:15,22,25            | <b>carry</b> 19:23     | <b>caught</b> 97:7    | 112:23,23               |
| 43:6,8,12,18,20        | <b>case</b> 9:11 10:17 | <b>cause</b> 11:25    | 121:13 122:7            |
| 43:25 44:8,13          | 11:17 12:20            | 99:19                 | 123:7,9                 |
| 44:21,25 45:3          | 14:4,23,24             |                       |                         |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>chapter</b> 35:8<br>36:5 37:7<br>41:20,20 42:2<br>42:6 43:1,1,11<br>43:19 46:10,11<br>46:22,22 47:15<br>48:4,6,8 49:21<br>49:23 52:22,24<br>53:1 55:14,25<br>56:23 117:2<br><b>chapters</b> 31:15<br>42:3 48:12,19<br>58:14<br><b>characterizati...</b><br>55:24<br><b>characterize</b><br>31:4 101:20<br><b>charles</b> 1:14<br>3:2,8 4:1,10<br>121:9 122:4,9<br>123:4,13<br>124:20<br><b>chart</b> 26:22<br><b>chassis</b> 40:2<br><b>chemical</b><br>112:17<br><b>chevrolet</b> 38:10<br><b>chicago</b> 2:10<br><b>choices</b> 44:24<br><b>chosen</b> 62:18<br><b>circuit</b> 75:24<br><b>citation</b> 78:16<br>78:17<br><b>cite</b> 35:8 77:16 | <b>cited</b> 22:22<br>23:2 27:7 72:3<br>79:9 81:13<br>83:21 91:20<br>106:6<br><b>citing</b> 105:1<br>106:2<br><b>civil</b> 1:6 122:5<br>123:5<br><b>claim</b> 3:9 6:11<br>26:22 72:7,9<br>72:17 78:1,12<br>79:24 80:1<br>97:14,18,20,22<br>98:17,20 101:4<br>101:6,6,9,12,16<br>101:17,18,20<br>101:21,22,23<br>102:3,4 103:9<br>105:5 115:13<br>115:23<br><b>claimed</b> 94:18<br><b>claims</b> 26:23<br>80:2 81:24<br>97:17,23 101:1<br>102:10 106:6<br>106:11 108:1<br><b>clarification</b><br>105:14<br><b>clarify</b> 15:13<br><b>class</b> 84:7<br>102:9,12,14<br>107:3,10 108:5<br>108:8 110:2<br>114:10,12 | 115:10,14<br><b>classes</b> 114:8<br>114:25 115:2<br><b>classified</b><br>115:22<br><b>clear</b> 78:10<br>93:1<br><b>clearly</b> 50:17<br>52:10 78:9<br>81:7 82:3<br>102:5,11<br><b>cleveland</b> 121:2<br><b>client's</b> 14:4<br><b>close</b> 75:6,18<br>75:19<br><b>closeable</b> 75:15<br><b>closed</b> 77:21<br>83:5 84:6<br><b>closes</b> 75:23<br><b>coauthor</b> 29:11<br>30:9,23 31:1<br>31:11 33:2<br><b>coauthored</b><br>30:21 117:16<br><b>coauthors</b><br>30:17<br><b>coextensive</b><br>98:2<br><b>colleague</b> 30:13<br>30:14,19<br><b>collection</b> 9:20<br>66:3<br><b>college</b> 29:17<br><b>column</b> 14:8<br>15:14,22 16:3 | 64:25 67:8<br>73:5 75:2 76:3<br>76:19,23 77:5<br><b>column's</b> 14:3<br><b>combination</b><br>32:1<br><b>come</b> 26:7 49:9<br>118:23<br><b>comfortable</b><br>105:2<br><b>comma</b> 35:23<br><b>comment</b><br>109:21<br><b>commented</b><br>23:4<br><b>commercial</b> 8:4<br><b>commission</b><br>122:19 123:25<br>124:25<br><b>common</b> 56:6<br>56:10 67:5<br>69:1 91:24<br>95:8<br><b>commonly</b><br>94:12<br><b>communicating</b><br>36:25<br><b>community</b><br>49:10<br><b>company</b> 8:15<br>14:7<br><b>compared</b> 98:7<br><b>compete</b> 117:10<br>117:25 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                                               |                                                                                                   |                                                      |                                                                                                          |
|-------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| <b>complaint</b><br>20:25 26:16,21                                            | <b>conclusions</b><br>105:25                                                                      | <b>consider</b> 40:2<br>40:13,23 54:25               | <b>contemplated</b><br>58:12                                                                             |
| <b>complete</b> 38:6<br>38:8 96:1,12<br>96:17 120:12                          | <b>conditions</b><br>52:11                                                                        | 58:24 59:4<br>85:20 87:5                             | <b>contentions</b><br>26:20 27:2                                                                         |
| <b>completed</b><br>121:16                                                    | <b>configurations</b><br>117:3                                                                    | 90:20 114:3,6<br>114:10 116:3                        | <b>contents</b> 41:15<br>48:20,20                                                                        |
| <b>complying</b><br>46:25                                                     | <b>configured</b><br>102:13                                                                       | <b>consideration</b><br>54:13,19                     | <b>context</b> 62:19<br>74:17 91:6                                                                       |
| <b>component</b><br>59:7 68:12                                                | <b>confirm</b> 37:17<br>50:19                                                                     | <b>considered</b><br>20:21 22:2<br>23:4 27:6         | 92:19 100:20<br>103:3 114:15                                                                             |
| <b>components</b><br>66:5 68:9 83:6<br>83:7,16 84:7<br>89:23 94:20<br>114:4,9 | <b>confirming</b><br>74:22                                                                        | 38:15 39:7,23<br>89:12 90:25<br>104:25               | <b>continue</b> 83:3<br>118:6                                                                            |
| <b>comport</b> 32:17                                                          | <b>conical</b> 89:1,2                                                                             | <b>considering</b><br>27:10                          | <b>continuing</b><br>90:6                                                                                |
| <b>composite</b> 55:1                                                         | <b>connect</b> 47:23<br>88:10                                                                     | <b>consistent</b><br>43:14                           | <b>contributions</b><br>31:5                                                                             |
| <b>compression</b><br>56:8,16,21                                              | <b>connected</b> 32:2<br>42:20 85:16<br>101:10                                                    | <b>construction</b><br>3:9 6:11                      | <b>control</b> 59:8<br>88:8 89:12                                                                        |
| <b>computer</b> 31:9                                                          | <b>connecting</b><br>83:8 90:7                                                                    | <b>consumed</b> 19:8                                 | <b>controlled</b> 59:3<br>86:2 87:16<br>88:22                                                            |
| <b>concept</b> 53:18<br>56:16 80:25<br>81:22 98:15<br>101:12,16<br>111:18     | <b>connection</b> 5:1<br>6:10 7:8,14 8:4<br>8:24 24:17<br>86:11 89:8,25<br>91:7,10 92:22<br>94:12 | <b>consumer</b> 70:3<br>80:11                        | <b>controls</b> 73:25                                                                                    |
| <b>concern</b> 95:15                                                          | <b>connections</b><br>25:7 39:3 44:5<br>58:6                                                      | <b>consumer's</b><br>64:10                           | <b>conventional</b><br>77:21 78:7                                                                        |
| <b>concerned</b><br>36:14 47:2,2<br>113:14                                    | <b>connotation</b><br>45:14                                                                       | <b>consumers</b> 62:5                                | <b>conversant</b><br>73:21                                                                               |
| <b>concluded</b><br>119:15                                                    | <b>connote</b> 102:7                                                                              | <b>contact</b> 42:22<br>43:7 44:12,23<br>45:25 88:16 | <b>conversations</b><br>9:4                                                                              |
| <b>conclusion</b> 26:8<br>67:1 91:20<br>104:23                                | <b>connotes</b><br>115:19                                                                         | <b>contacting</b><br>46:16                           | <b>convey</b> 15:23                                                                                      |
|                                                                               |                                                                                                   | <b>contacts</b> 66:23<br>75:15,19                    | <b>cooperating</b><br>98:25 99:6,10<br>99:13,16,19,24<br>99:25 100:5,6<br>100:13,16,22<br>105:17 106:6,8 |
|                                                                               |                                                                                                   | <b>contain</b> 97:17                                 |                                                                                                          |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>copies</b> 22:10<br>95:16 96:3<br><b>copy</b> 11:8,10<br>22:13 33:14<br>70:17,21 77:18<br>119:13<br><b>copyright</b><br>33:21 34:2,6<br>34:15<br><b>cornell</b> 30:20<br><b>corporation</b><br>17:22 18:16<br><b>correct</b> 4:12,13<br>5:13 6:25 7:9<br>7:19 8:18 9:1<br>9:25 10:18<br>11:18 12:21,22<br>13:10,13,18<br>14:6,10 15:8<br>15:12 16:6,9<br>16:12 17:4<br>21:17 22:21<br>23:2,25 24:10<br>26:12 28:5<br>29:8,12,16<br>30:4,11 31:3<br>32:5 34:10<br>35:1,9,18,19,24<br>36:10,17 37:8<br>37:12,14 43:3<br>47:17 52:3<br>63:23 70:23<br>71:3,10 72:1,6<br>72:11,14,15<br>74:25 79:1,11 | 79:23 80:3,18<br>80:22 81:2<br>84:11 88:24<br>91:13 94:23<br>97:1,15,16<br>98:18,23 99:2<br>101:8,10,11<br>102:1 103:6,11<br>104:21 106:8<br>108:19 109:13<br>110:11 111:12<br>111:13 112:3<br>113:6,17,21,22<br>113:24 114:15<br>118:21,24<br>120:12<br><b>corrections</b><br>35:5 121:13<br>123:17<br><b>correctly</b> 5:14<br>39:17 76:3<br><b>corrects</b> 30:7<br><b>couched</b> 108:15<br><b>counsel</b> 2:1<br>16:4 120:14,16<br><b>count</b> 6:21<br>16:14<br><b>counterparts</b><br>23:15,18<br><b>county</b> 120:5<br>122:10 123:15<br><b>couple</b> 9:3 21:5<br>29:10 31:15<br>53:3,4 55:13<br>71:24 | <b>coupling</b> 84:9<br>84:22<br><b>course</b> 16:18<br>22:22 41:12<br><b>court</b> 1:1 6:5<br>6:14,23 7:2,10<br>7:13 13:4 15:6<br>15:14 16:19,24<br>17:2,3 21:15<br>29:1 33:17<br>46:4,7 102:16<br>102:19 105:18<br>105:20 119:7<br>119:12 122:7<br><b>covered</b> 20:7<br>37:4 48:16<br>105:12 116:18<br><b>covers</b> 6:23<br><b>crank</b> 37:13<br>38:11 55:16<br>56:4<br><b>create</b> 43:10<br>59:8 65:20,25<br>66:6 83:15<br>84:8,8,22 91:7<br>100:2,13<br>114:11,13,16<br>115:11<br><b>created</b> 48:23<br>61:10 99:24<br>115:5<br><b>creating</b> 57:22<br>85:2 90:2<br><b>crisp</b> 21:12 | <b>cross</b> 3:4 4:4<br>38:7<br><b>cunningham</b><br>78:25 81:21<br>82:13<br><b>current</b> 4:18<br><b> cursory</b> 93:18<br><b>customer</b> 64:14<br>69:22<br><b>cv</b> 1:7 6:9 7:17<br>11:17 13:9<br>17:7 29:24<br><b>cylindrical</b><br>88:23 117:4 |
| <b>d</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                        |
| <b>d</b> 4:11 73:16<br>74:25 75:3<br>117:17<br><b>dash</b> 73:16<br><b>data</b> 3:15 60:17<br>61:25<br><b>date</b> 5:10 27:21<br>28:2 60:24<br>61:10 88:7<br>91:17 93:9,13<br>93:15,21 95:1<br>108:3 118:25<br>121:9 122:3,9<br>122:19 123:3<br>123:13,25<br>124:20,25<br><b>dated</b> 61:15<br><b>dates</b> 34:2 61:3<br>61:5,7                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                        |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>day</b> 9:15,15<br>10:3,3 120:18<br>122:16 123:22<br>124:22                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>deceased</b> 30:14<br><b>december</b> 5:17<br>20:17,17<br>118:12                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>defined</b> 36:13<br>84:8,21 85:2,6<br>85:17,20 86:7<br>86:10,16,23<br>87:6,8,17,25<br>88:19 90:7<br>99:17,19,23<br>100:1,2 113:13<br>114:13,17<br>115:5,11                                                                                                                                                                                                                                                                   | 58:25<br><b>deform</b> 53:18<br>86:20<br><b>deformation</b><br>90:2<br><b>degree</b> 88:2,9<br><b>degrees</b> 87:21<br>87:23 88:5<br>89:7<br><b>denotes</b> 115:19<br><b>department</b><br>121:23<br><b>depend</b> 58:18<br><b>dependent</b><br>97:23 101:1,17<br>101:21 102:3<br>102:10<br><b>depending</b> 54:5<br>54:12,14<br><b>depends</b> 55:4<br>56:12 101:6,18<br>101:22<br><b>deposed</b> 4:22<br>5:11<br><b>deposition</b> 1:13<br>5:9 12:18<br>16:24 17:2<br>23:21 24:11<br>60:17 62:3<br>96:8 97:4<br>102:25 110:22<br>119:15 121:9<br>121:12 122:1,3<br>123:1,3 |
| <b>days</b> 121:19<br><b>deactivate</b><br>64:15 69:23<br>78:14 80:21<br>82:3 97:14,25<br>98:17 100:14<br>101:24 102:4,7<br>102:15 106:11<br>106:16,17,20<br>107:2 111:6<br><b>deactivated</b><br>67:24 68:19<br>69:10 81:19<br>111:14<br><b>deactivation</b><br>50:11 64:18<br>67:14,19 77:22<br>78:8,11 79:15<br>79:20,20,25<br>80:3,6,7,8,9,24<br>81:2,4,8,11,14<br>81:14,15,16,17<br>81:18,22,23,25<br>82:6,8,14,16<br><b>deal</b> 18:25<br>25:10 57:9<br><b>dealing</b> 99:23<br><b>deals</b> 97:13<br><b>dear</b> 121:11<br><b>decades</b> 32:24<br>33:2 | <b>decide</b> 44:22<br><b>declaration</b> 3:8<br>7:16 10:16,19<br>11:9,11 12:1,6<br>12:20,24 13:3<br>17:14 21:23<br>22:2 23:20<br>24:6,10,13<br>26:11 27:18<br>28:21 29:2,9<br>31:21 35:7,25<br>50:22 53:7<br>60:13 61:20<br>77:12 79:4<br>93:4 97:9<br>102:24 118:3<br>118:18,20<br><b>declaratory</b><br>14:13<br><b>deed</b> 122:14<br>123:20<br><b>deemed</b> 121:20<br><b>defendant</b> 25:6<br><b>defendants</b> 1:9<br>2:7 24:9 25:2<br>27:3 28:7 71:1<br>71:6<br><b>defended</b> 16:23<br>17:2<br><b>define</b> 114:11 | <b>defines</b> 31:24<br><b>definite</b> 32:3<br>57:17 58:8<br>102:8 103:10<br><b>definitely</b> 24:22<br>114:9<br><b>definition</b><br>32:18 33:9<br>35:25 36:19,21<br>50:23 51:9<br>53:9 57:16<br>85:7<br><b>definitional</b><br>36:22<br><b>deflect</b> 53:17<br>53:20 57:3<br>58:21 59:3<br>86:20<br><b>deflection</b><br>53:21 54:1,4<br>54:12,21 55:22<br>55:23 56:1<br>57:9 58:4,11<br><b>deflections</b><br>57:1 58:16,18 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>depositions</b> 5:1<br>5:5 16:19<br><b>describe</b> 32:10<br>38:4 39:12<br>45:10 50:5,10<br>50:13 61:24<br>64:9 65:21<br>74:16 77:19<br>103:7<br><b>described</b><br>31:13 50:17<br>52:19 74:15<br>75:5 76:11<br>79:13 82:12<br>99:9 103:19<br><b>describes</b> 10:20<br>60:1 76:9<br><b>describing</b> 64:3<br>77:20 102:11<br>104:1<br><b>description</b> 3:7<br>32:14,15 59:24<br>63:14 67:8<br>75:1 76:2<br>77:25 98:12<br><b>descriptions</b><br>50:2<br><b>design</b> 31:9<br>36:13,14 37:2<br>44:17,20,24<br>49:4 52:9<br>54:22 55:7<br>99:12 113:14<br>113:15 | <b>designation</b><br>19:24,25<br><b>designing</b><br>44:18 59:7<br><b>detail</b> 14:12<br>23:7,9 24:23<br>27:16 46:18<br>60:22 92:17,24<br><b>detailed</b> 76:2<br><b>details</b> 26:25<br>54:12,14,15<br>55:4 64:20<br>65:21,23 67:4<br>67:21 68:5<br><b>detect</b> 52:10<br>112:11<br><b>detector</b> 3:18<br>75:20 77:21<br><b>determine</b><br>69:18<br><b>develop</b> 40:7<br><b>developed</b> 31:8<br>53:1<br><b>device</b> 46:20<br>53:16 60:3<br>64:7 65:19<br>66:11 80:8<br><b>devices</b> 43:6<br>44:4 47:19<br>50:16 52:10,13<br>52:23 53:15,25<br>59:2 66:20<br>68:23 71:13<br>78:5,7 84:16<br>85:3,16 89:5,8 | 116:19<br><b>diameter</b> 40:21<br><b>differ</b> 114:21<br><b>difference</b><br>41:23 46:24<br>50:22 53:13<br>61:7 80:4<br><b>differences</b><br>34:25 35:2,3<br><b>different</b> 20:11<br>34:24 37:19<br>40:21 41:4,9<br>44:18 47:8,22<br>48:1 102:8<br>105:11 114:23<br>115:21<br><b>differentiate</b><br>10:12<br><b>differentiation</b><br>101:13,16,21<br><b>dimensioned</b><br>88:13<br><b>dimensions</b><br>87:18<br><b>direct</b> 5:25 6:1<br>6:2,3 66:11<br>104:2<br><b>direction</b> 88:21<br>120:10<br><b>directly</b> 19:1,10<br>99:5<br><b>disagree</b> 39:6<br>105:1 106:22<br>107:17 | <b>discloses</b><br>105:16 106:1<br><b>disclosure</b> 9:12<br>61:15 74:20<br>76:15<br><b>disclosures</b><br>79:19 81:12<br><b>discuss</b> 75:8<br>111:6,20<br><b>discussed</b> 50:17<br>61:19 96:8<br>110:22<br><b>discussion</b> 10:4<br>38:2 46:17<br>49:4 50:8<br>55:20 56:24<br>57:12 81:6,20<br>87:20 96:13<br>98:9,10,15<br>99:4,12 111:23<br>119:10<br><b>disposal</b> 67:16<br><b>distinguish</b><br>42:21<br><b>district</b> 1:1,1<br>6:5,14,23 7:2<br><b>division</b> 1:2<br>36:13 113:14<br><b>divorced</b> 39:3<br><b>document</b> 13:5<br>13:15,17 14:1<br>60:4,16 61:9<br>61:18 62:4,15<br>62:20 70:9<br>118:12 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>documents</b><br>11:1,3,20,23<br>72:3<br><b>doing</b> 31:18<br><b>downloaded</b><br>23:8<br><b>dozen</b> 6:8<br><b>dozens</b> 41:2<br><b>dr</b> 3:8 4:14<br>24:6,8,12<br>30:18 50:24<br>51:7 110:9,22<br><b>drafted</b> 9:12<br><b>draftsman</b> 9:14<br><b>drawing</b> 10:2<br><b>drawings</b> 9:22<br>9:24 10:1<br>55:15 75:1<br><b>drew</b> 9:13,13<br><b>drive</b> 40:20<br><b>dtg</b> 1:7<br><b>due</b> 58:11<br><b>duly</b> 4:2<br><b>dynamic</b> 57:25<br>58:11<br><b>dynamics</b> 3:14<br>29:15 58:15,20<br>58:22 | 120:1,1<br><b>earlier</b> 30:21<br>31:8 33:9,11<br>48:16 49:6<br>97:3 104:11<br><b>earliest</b> 35:4<br><b>early</b> 7:7 20:17<br>26:24 33:6<br><b>earth</b> 39:24<br><b>easier</b> 42:4<br><b>easy</b> 65:13<br><b>editing</b> 31:19<br><b>edition</b> 30:2,19<br>30:24,25 31:5<br>32:7 33:1,23<br>34:7,19 35:2<br>48:13,21,24<br>49:21 52:25<br><b>editions</b> 30:17<br>30:21 33:9,11<br>34:8 48:17<br>49:6<br><b>edits</b> 31:17<br><b>effect</b> 25:14<br>45:5<br><b>efficient</b> 99:13<br><b>eight</b> 16:14,24<br><b>either</b> 4:16 8:19<br>18:7 25:15<br>69:4 71:8 73:1<br>82:1 99:4<br><b>electromagnet</b><br>75:6,22<br><b>electromecha...</b><br>52:6 | <b>electronic</b> 19:6<br>22:10,16<br><b>element</b> 53:24<br><b>elements</b> 85:8<br><b>email</b> 121:18<br><b>embodiment</b><br>76:10,19 116:2<br><b>embodiments</b><br>76:4,24 77:6<br><b>embody</b> 28:9<br><b>employ</b> 120:15<br><b>enclosed</b><br>121:12<br><b>engage</b> 83:17<br>116:12<br><b>engaged</b> 21:1,3<br>66:6<br><b>engagement</b><br>15:10 24:21<br>26:17<br><b>engine</b> 38:6,10<br>38:10,12,13<br>39:25 54:8,18<br>54:21,23 58:2<br><b>engineering</b><br>29:20 62:19<br><b>engines</b> 55:3<br><b>enmeshed</b><br>45:23<br><b>ensued</b> 10:4<br>96:13 119:10<br><b>entered</b> 123:9<br><b>entire</b> 110:16<br>122:5 123:5 | <b>entitled</b> 9:4<br><b>environmental</b><br>52:11<br><b>equal</b> 62:13<br><b>equation</b> 40:7<br><b>equipment</b> 1:5<br>17:16 121:6<br>122:3 123:3<br><b>equivalent</b><br>115:9<br><b>errata</b> 121:14<br>121:19 123:7<br>123:10,18<br>124:1<br><b>error</b> 95:20<br>96:11 97:5<br><b>errors</b> 35:5<br><b>esq</b> 2:3,9 3:20<br>121:5<br><b>essentially</b> 75:5<br><b>et</b> 11:17 121:7<br>122:3 123:3<br><b>european</b> 47:12<br><b>events</b> 21:14<br><b>evidence</b> 103:9<br>103:13,17<br>120:12<br><b>exact</b> 64:20<br>85:24 92:10<br><b>examination</b><br>3:4 4:4 104:19<br>106:4<br><b>examinations</b><br>3:1 |
| <b>e</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>e</b> 2:9 3:20 4:11<br>4:11,11,11,20<br>7:25 8:17 23:5<br>23:5 73:16,16<br>74:25,25 75:3<br>117:16,18                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

|                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                      |                                                                                                                                                         |                                                                                                                       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| <b>examined</b> 4:2<br>64:2                                                                                                                                                                                                                                                                                             | 116:20 117:8                                                                                                                                                                                                                                         | 91:23 92:3                                                                                                                                              | 101:12 103:22                                                                                                         |
| <b>examiner</b> 23:4<br>28:17 104:19<br>105:16 106:3<br>106:17 107:7<br>107:14,18<br>108:13,16,17<br>108:19 109:15<br>109:19,21                                                                                                                                                                                         | <b>examples</b> 37:19<br>38:4,21 41:2,9<br>106:18 115:21                                                                                                                                                                                             | <b>expert</b> 5:6 10:6<br>24:8 28:17<br>39:11                                                                                                           | 117:9                                                                                                                 |
| <b>examiner's</b><br>104:22 105:4,7<br>105:10 106:23                                                                                                                                                                                                                                                                    | <b>exciting</b> 49:15                                                                                                                                                                                                                                | <b>expertise</b> 20:23                                                                                                                                  | <b>familiarity</b><br>52:15                                                                                           |
| <b>examiners</b><br>28:15,18                                                                                                                                                                                                                                                                                            | <b>executed</b> 31:12<br>123:10                                                                                                                                                                                                                      | <b>expiration</b><br>122:19 123:25<br>124:25                                                                                                            | <b>far</b> 96:8                                                                                                       |
| <b>example</b> 23:5<br>29:13 37:15<br>38:9 39:19<br>40:14,19,23<br>42:25 46:1,5<br>47:3,23 48:10<br>48:10 49:20<br>54:18 55:12<br>56:3 57:8,25<br>59:8 68:24<br>75:24 78:8<br>81:9 82:10<br>83:17,25 84:24<br>85:10 86:13<br>89:23 90:5,17<br>100:10 106:20<br>107:8,19<br>108:21 112:11<br>112:18 113:2<br>115:4,12,24 | <b>execution</b><br>122:14 123:19                                                                                                                                                                                                                    | <b>extensive</b> 31:6                                                                                                                                   | <b>fastener</b> 85:23                                                                                                 |
|                                                                                                                                                                                                                                                                                                                         | <b>exhibit</b> 3:7,8,10<br>3:12,14,15,17<br>3:20 11:11,12<br>11:13,14 12:1<br>12:8,10,12,14<br>12:15,17,18,19<br>23:21 33:16,18<br>59:16,20,23<br>60:14,17,24<br>61:15 62:3,9<br>63:14 70:14,15<br>70:19 75:12<br>96:14,18<br>102:25 113:5<br>117:11 | <b>extent</b> 34:24<br>107:20 108:18                                                                                                                    | <b>fax</b> 2:6                                                                                                        |
|                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                      | <b>f</b>                                                                                                                                                | <b>feature</b> 63:5,9<br>63:25 64:12,18<br>67:24 68:15                                                                |
|                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                      | <b>f</b> 4:11 120:1                                                                                                                                     | <b>features</b> 60:2<br>65:11 98:25<br>99:4,6,10,13,17<br>99:19,24 100:1<br>100:5,6,13,16<br>100:22 105:17<br>106:6,9 |
|                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                      | <b>face</b> 23:11 27:7<br>71:4 78:23<br>79:9 83:21<br>91:21                                                                                             | <b>feedback</b> 9:16                                                                                                  |
|                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                      | <b>faces</b> 23:2                                                                                                                                       | <b>feel</b> 42:3 69:20<br>105:2 106:19                                                                                |
|                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                      | <b>fact</b> 43:22<br>45:19                                                                                                                              | <b>felt</b> 106:17<br>107:18                                                                                          |
|                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                      | <b>fails</b> 103:9                                                                                                                                      | <b>field</b> 36:23 44:3<br>45:11 49:7<br>83:1 84:17<br>114:5 115:3<br>117:22                                          |
|                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                      | <b>fair</b> 6:22 8:23<br>14:7 19:10<br>26:9 27:5,19<br>29:4 41:1<br>48:24 55:24<br>56:23,25 77:24<br>78:2 83:22<br>84:13 94:6<br>98:14 101:23<br>108:16 | <b>figure</b> 37:11,11<br>38:3,6,11,18,19<br>39:14,14,19<br>40:6,9,19<br>55:16,19 56:3<br>74:6,6,8 76:21<br>95:18,21  |
|                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                      | <b>fall</b> 5:10,11,12<br>21:6 69:6                                                                                                                     |                                                                                                                       |
|                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                      | <b>familiar</b> 19:23<br>28:12 92:14                                                                                                                    |                                                                                                                       |
|                                                                                                                                                                                                                                                                                                                         | <b>existed</b> 107:11<br>108:9                                                                                                                                                                                                                       |                                                                                                                                                         |                                                                                                                       |
|                                                                                                                                                                                                                                                                                                                         | <b>exists</b> 42:12                                                                                                                                                                                                                                  |                                                                                                                                                         |                                                                                                                       |
|                                                                                                                                                                                                                                                                                                                         | <b>expected</b> 56:13                                                                                                                                                                                                                                |                                                                                                                                                         |                                                                                                                       |
|                                                                                                                                                                                                                                                                                                                         | <b>experience</b> 6:23<br>22:20 51:4<br>83:14,23 88:6                                                                                                                                                                                                |                                                                                                                                                         |                                                                                                                       |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>figures</b> 9:13<br>37:8,9,18<br>39:10 71:12<br>73:21 74:4<br>76:5,24 97:5,6<br><b>filament</b> 55:2<br><b>file</b> 1:6 106:3<br>108:12,18<br><b>filing</b> 95:1,6<br>108:3 110:1<br><b>find</b> 38:24 51:2<br>62:21 121:12<br><b>finger</b> 74:10<br><b>finite</b> 44:19<br><b>firm</b> 16:11,13<br>29:7<br><b>first</b> 1:8 4:2<br>18:12 30:19,25<br>31:23 33:6,22<br>34:18 35:4<br>37:7,11 48:21<br>54:16 62:11<br>63:13 72:2<br>75:13,17 84:3<br>91:5,14 93:17<br>94:2,4 98:24<br>100:7,9 121:6<br>122:3 123:3<br><b>fish</b> 2:3 16:11<br>16:13,21,22<br>29:6<br><b>fit</b> 87:2,5,15<br>89:16,18,21<br>90:11,15,19,21<br>90:23 91:2 | <b>five</b> 7:5 10:20<br>13:22 16:15,25<br><b>flange</b> 75:14<br><b>flexibility</b><br>57:13,13<br><b>flexible</b> 56:5,11<br><b>flip</b> 104:4,15<br><b>floodbreak</b><br>17:9<br><b>floor</b> 1:19 2:4<br><b>florida</b> 4:21<br><b>flows</b> 21:23<br><b>flyer</b> 60:1<br><b>focus</b> 27:17<br>52:7,20 55:7<br>81:10<br><b>focused</b> 38:16<br>74:19 97:24<br>108:25<br><b>focuses</b> 43:11<br><b>focusing</b> 28:22<br>104:24<br><b>follower</b> 41:8<br>42:13,15 43:6<br>43:8,12,18,25<br>44:8,25 45:4,9<br>45:16,24 46:9<br>114:22 116:1<br>117:3,6<br><b>followers</b> 47:20<br><b>following</b><br>114:19<br><b>follows</b> 4:3<br><b>force</b> 59:8 | <b>forces</b> 8:1<br>58:12,17,18,23<br>59:9<br><b>forcible</b> 88:16<br><b>forcing</b> 90:1<br><b>foregoing</b><br>120:7,11<br>122:13 123:18<br><b>foreign</b> 23:14<br>23:17<br><b>form</b> 26:13<br>57:22 73:5<br>82:3,4 85:10<br>93:2,3 105:25<br><b>formal</b> 20:17<br>24:21 26:16<br><b>formally</b> 21:3<br><b>formed</b> 24:24<br>32:1<br><b>forms</b> 38:12<br><b>forth</b> 33:20<br><b>fortress</b> 110:10<br><b>forward</b> 121:16<br><b>found</b> 38:9<br>60:5,7 77:24<br>79:8,12<br><b>four</b> 6:17 7:5<br>13:22 16:17,20<br>16:24 30:17<br>39:20 41:7,8<br>42:12 80:2,16<br>113:25 114:6<br>116:4<br><b>fourth</b> 14:3<br>30:2,2,24,25 | 31:5 32:7<br>33:23 34:19<br>35:2 48:24<br>52:25 63:17<br><b>fr.com</b> 2:6<br><b>frame</b> 40:2<br><b>fred</b> 30:21<br><b>frederick</b> 1:14<br>3:2 4:1,10<br>121:9 122:4,9<br>123:4,13<br>124:20<br><b>free</b> 42:3 57:25<br>89:10 122:14<br>123:20<br><b>freedom</b> 87:21<br>87:23 88:3,5,9<br>89:7<br><b>friction</b> 88:17<br><b>frictional</b> 8:1<br><b>friedman</b> 1:24<br>120:20<br><b>front</b> 6:13 11:1<br>11:5,16 17:14<br>60:1<br><b>full</b> 4:8 95:19<br><b>fulton</b> 120:5<br><b>function</b> 90:4<br>115:16<br><b>functions</b> 90:24<br><b>fundamentally</b><br>43:17<br><b>funded</b> 18:3<br><b>further</b> 73:22<br>75:8 100:12 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                        |                        |                       |                        |
|------------------------|------------------------|-----------------------|------------------------|
| 119:2 120:13           | <b>georgia</b> 1:20    | <b>google</b> 27:20   | <b>happens</b> 12:18   |
| <b>g</b>               | 2:5 120:4              | <b>gould</b> 24:3     | 68:11                  |
| <b>gary</b> 117:15     | <b>getting</b> 33:8    | <b>governed</b> 19:16 | <b>happy</b> 39:13     |
| <b>gates</b> 2:8       | 46:15 87:20            | <b>governing</b> 19:5 | 73:22 75:8             |
| <b>gear</b> 36:15 43:4 | <b>give</b> 6:1 9:6    | <b>grab</b> 51:20     | <b>hard</b> 8:6        |
| 43:10,13 44:14         | 51:18 59:20            | 102:16                | <b>hardware</b>        |
| 44:21 45:21            | <b>given</b> 5:18 6:13 | <b>graduate</b> 9:20  | 52:17                  |
| 46:14 47:13,25         | 8:23 20:21             | 29:21                 | <b>head</b> 65:22      |
| 47:25 48:2,3,6         | 21:3 110:14            | <b>great</b> 4:17     | 72:23 98:13            |
| 48:8,11 113:16         | 120:13                 | 60:22 102:20          | <b>heading</b> 35:22   |
| 113:21 114:2,7         | <b>gives</b> 37:5      | <b>greatly</b> 46:19  | 63:14                  |
| 114:16                 | <b>giving</b> 37:3     | <b>groove</b> 117:5,6 | <b>hear</b> 9:4        |
| <b>gearing</b> 47:16   | 68:24                  | <b>grooves</b> 94:9   | <b>heard</b> 87:2      |
| <b>gears</b> 36:15     | <b>glad</b> 48:5 97:7  | <b>ground</b> 39:21   | 103:18 104:2           |
| 43:2,5,17,23           | <b>global</b> 27:12    | 39:23 45:25           | <b>hearing</b> 120:13  |
| 45:7,23 46:11          | <b>go</b> 9:25 11:22   | 47:21                 | <b>hearings</b> 6:11   |
| 46:21,22,25            | 12:5,17 13:11          | <b>guess</b> 17:4     | 6:24                   |
| 47:5,20,21             | 21:22 31:20            | 18:22 105:9           | <b>heat</b> 54:18,19   |
| 48:2,7,9 99:8          | 35:6,10 36:2           | 106:2 107:13          | <b>helical</b> 47:16   |
| 113:15,20              | 42:2,5 53:6            | <b>guessing</b> 10:13 | 85:17 87:15            |
| 114:7,18,23            | 63:13 70:16            | <b>guide</b> 28:16,18 | 94:11 116:14           |
| <b>general</b> 43:25   | 72:8 73:7,13           | <b>guided</b> 87:15   | 116:15 117:5           |
| 45:8 62:4 98:5         | 74:8 77:9,11           | 88:21                 | <b>help</b> 59:8       |
| 112:7 114:5            | 80:14 100:25           | <b>h</b>              | <b>helped</b> 26:12    |
| 117:22                 | 102:24 110:5           | <b>h</b> 4:11,11      | <b>helpful</b> 21:14   |
| <b>generally</b> 19:23 | 116:24 118:2           | <b>half</b> 6:8       | 61:11                  |
| 20:7 28:13             | <b>goes</b> 48:8       | <b>hamilton</b> 30:13 | <b>helps</b> 74:12     |
| 31:6 32:19             | <b>going</b> 33:13     | <b>hand</b> 9:13,24   | <b>high</b> 9:6 37:3,6 |
| 60:2 74:7              | 38:18 59:19            | 10:1 35:15            | <b>higher</b> 44:9,9   |
| 81:22 84:17            | 70:13 89:23            | 41:13 59:19           | 44:10,21 56:8          |
| 87:5 94:7              | 116:22 119:4           | 70:13                 | <b>histories</b> 22:10 |
| 101:19 105:3           | <b>good</b> 4:6,7      | <b>handing</b> 33:20  | <b>history</b> 22:8    |
| 117:25                 | 61:20 92:6             | <b>happen</b> 14:15   | 72:3 104:8,12          |
| <b>generate</b> 31:11  | 97:7 105:13            | <b>happened</b> 30:7  | 108:12,19              |
| 43:13                  |                        |                       | 109:1                  |

|                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>hits</b> 58:1<br><b>hold</b> 22:15<br><b>hole</b> 86:14,15<br>89:24,25<br><b>honeywell</b><br>18:19<br><b>hour</b> 53:4<br>59:14 102:18<br><b>housekeeping</b><br>11:1 12:17<br><b>huh</b> 22:12<br>27:11 38:20<br>41:18 42:23<br>45:18 75:9,11<br>76:17 85:5<br>86:1 89:15<br>95:22<br><b>hundred</b> 32:20<br>49:1<br><b>hundreds</b><br>111:8<br><b>hush</b> 3:16<br><b>hypothetical</b><br>84:24 86:25<br>88:7,12,20<br>90:11 | <b>identifying</b><br>109:15<br><b>illinois</b> 2:10<br><b>illustrate</b> 76:24<br><b>illustrated</b><br>76:21<br><b>illustrates</b> 74:6<br><b>image</b> 39:18<br><b>immediately</b><br>111:22<br><b>imparts</b> 100:12<br><b>implementati...</b><br>56:10 85:24<br><b>implemented</b><br>52:16<br><b>implied</b> 108:5<br><b>imply</b> 54:24<br><b>important</b><br>14:20 43:21<br>44:7 51:8<br>52:14,17 54:13<br>54:20 57:5<br><b>impossible</b><br>54:25<br><b>inaccurate</b><br>32:15<br><b>include</b> 36:18<br>94:19 97:18<br>108:20<br><b>included</b> 35:21<br>36:19 105:12<br>121:14<br><b>includes</b> 66:22<br><b>incorporate</b><br>63:5 | <b>incorporated</b><br>123:12<br><b>incorrect</b> 38:14<br><b>incorrectly</b><br>38:23<br><b>independent</b><br>101:17<br><b>index</b> 3:1,6<br><b>indicates</b> 34:18<br><b>indicating</b><br>121:14<br><b>industry</b> 8:14<br><b>inference</b> 66:12<br><b>infinite</b> 44:24<br><b>information</b><br>14:4 20:21<br>21:3 118:7<br><b>informative</b><br>45:17 102:10<br><b>infringement</b><br>10:9 25:19<br>26:20<br><b>infringer</b> 14:14<br><b>initial</b> 9:12<br><b>initially</b> 45:2<br>57:7<br><b>inoperable</b><br>80:9,10<br><b>input</b> 40:8<br>44:15 54:2<br><b>insights</b> 118:8<br><b>inspected</b> 60:22<br><b>inspection</b><br>71:13 | <b>install</b> 64:5,7<br>87:12 89:11<br><b>installation</b><br>65:12 86:5<br><b>installations</b><br>87:12<br><b>installed</b> 25:12<br>63:1 65:19<br><b>instances</b> 16:20<br>55:13 72:20<br><b>instruction</b><br>29:21<br><b>intellectual</b><br>8:10<br><b>intend</b> 22:15,15<br><b>intended</b> 62:2<br>75:1<br><b>intending</b><br>15:23<br><b>intention</b><br>113:19<br><b>interact</b> 43:15<br>51:5<br><b>interacting</b><br>100:7<br><b>interaction</b><br>39:3 57:21<br>99:8 116:19<br><b>interested</b> 62:6<br>120:17<br><b>interesting</b><br>91:25<br><b>interference</b><br>66:8,17,25<br>68:8 83:6,16 |
| <b>i</b>                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>idea</b> 34:21 58:8<br>64:10<br><b>ideas</b> 8:3 116:4<br>116:6<br><b>identification</b><br>12:8,12,15<br>33:18 59:16<br>70:15 96:15,19                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 89:5,16,18,21<br>90:4,11,14,19<br>90:21,23 91:2<br><b>interfering</b><br>67:2<br><b>international</b><br>18:19<br><b>interpretation</b><br>62:22 74:1<br>102:3<br><b>intervention</b><br>64:4<br><b>introduce</b> 57:4<br><b>introduction</b><br>36:6,9 52:22<br><b>introductory</b><br>36:24<br><b>invalidity</b> 27:2<br><b>invent</b> 8:3<br><b>invention</b> 61:22<br>78:6 83:1<br><b>inventor</b> 7:17<br>8:20,24<br><b>inventors</b> 23:23<br><b>inversions</b> 41:8<br><b>involute</b> 43:10<br>43:21<br><b>involved</b> 17:8,9<br>18:22 111:1<br><b>involvement</b><br>9:7,15 10:2<br>15:19 17:25<br><b>iron</b> 110:10<br><b>issue</b> 19:16<br>110:18 | <b>italic</b> 65:2<br><b>italics</b> 36:11<br>64:25 113:10<br><b>itc</b> 5:16,19,21<br><b>items</b> 113:25<br>114:6<br><b>j</b><br><b>january</b> 1:16<br>61:2 120:18<br>121:4<br><b>john</b> 24:8<br><b>joints</b> 38:23,24<br>42:21,21 44:5<br>44:6<br><b>judgment</b><br>14:13 53:23<br><b>julie</b> 1:24<br>120:20<br><b>junior</b> 29:20<br><b>jury</b> 6:14,24<br><b>k</b><br><b>k</b> 4:11 8:17<br>30:20 117:16<br>117:18<br><b>k&amp;l</b> 2:8<br><b>kalvin</b> 71:8<br><b>kazi</b> 2:3,6<br>33:24 34:2,4<br>35:13 41:18<br>51:20,23<br>105:21 119:4<br>119:14 121:5<br><b>keep</b> 10:11<br>71:19 74:9 | <b>ken</b> 117:17<br><b>key</b> 64:11<br><b>kidde</b> 1:4 3:15<br>17:15,20 18:7<br>59:24 60:20<br>62:12 65:6,10<br>121:6 122:3<br>123:3<br><b>kidde's</b> 26:19<br><b>kin</b> 120:14<br><b>kind</b> 5:6 10:5<br>29:18 42:12,15<br>49:10 81:8<br>94:12 96:11<br>97:4 100:2<br><b>kinds</b> 37:3<br>41:10 54:15<br>82:2 99:7<br>112:14,24<br><b>kinematic</b><br>36:14 38:4,16<br>58:12 113:15<br><b>kinematically</b><br>43:5,18<br><b>kinematics</b><br>52:21 53:22<br><b>kinzel</b> 117:15<br>117:16<br><b>klgates.com</b><br>2:11<br><b>knew</b> 34:17<br><b>know</b> 4:17 7:4<br>8:19 9:3,15<br>12:2 14:12,17<br>17:3,4,11 | 19:15,18,20<br>20:3 21:2,13<br>21:18 24:12<br>25:1,8,17,22<br>26:8 28:11<br>32:6 33:7<br>34:20,22 42:24<br>45:5 48:12<br>49:7,19 51:19<br>52:18,24 53:3<br>55:21 58:4,17<br>59:2,20 60:24<br>61:3 62:15,17<br>64:21 65:20,25<br>68:7 70:19<br>71:8,22 74:11<br>78:21 92:18<br>93:14,16,20<br>96:3 101:20<br>107:2,11<br>110:17,21,25<br>115:4,9<br><b>knowledge</b><br>8:22 98:9<br>104:3 111:13<br><b>known</b> 49:1,13<br>49:18 66:19<br>67:6 78:9<br>79:17,21 91:8<br>91:16 93:7,12<br>94:12 95:12<br>106:7,9,12<br>107:16 109:16<br>109:24 110:3 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                          |                         |                         |                      |
|--------------------------|-------------------------|-------------------------|----------------------|
| <b>knows</b> 107:10      | 84:15                   | 58:16                   | 28:9 33:24           |
| <b>kondziolka</b>        | <b>light</b> 82:9       | <b>list</b> 5:15 13:12  | 35:12 37:10          |
| 71:9                     | 112:12                  | 16:4,4 22:1,19          | 39:9 41:6 42:3       |
| <b>l</b>                 | <b>limitation</b>       | <b>listed</b> 14:8 17:7 | 50:19 51:16          |
| <b>l</b> 4:11,11 8:17    | 102:2                   | 17:10 22:21             | 55:15 59:20          |
| 8:17 117:16,17           | <b>limited</b> 66:2     | 23:11 27:18             | 60:14,25 62:8        |
| <b>labeled</b> 37:11     | 101:24                  | 116:16 123:7            | 62:11 63:11,25       |
| <b>labs</b> 18:23,24     | <b>line</b> 36:12 52:1  | 123:17                  | 64:18 65:17,23       |
| 19:1,13                  | 63:4,17 73:5            | <b>listing</b> 123:7    | 67:19 68:4           |
| <b>language</b> 78:12    | 73:11 75:12             | <b>litigated</b> 8:21   | 69:17,21 70:18       |
| <b>largely</b> 52:20     | 76:3,18,19,23           | <b>litigation</b> 17:24 | 73:22 74:3,5,8       |
| <b>larger</b> 89:24      | 77:5 121:14             | 18:6,21                 | 74:10 75:25          |
| <b>late</b> 5:16         | 123:7 124:3             | <b>little</b> 10:25     | 78:23 85:11,11       |
| <b>law</b> 103:23        | <b>link</b> 39:2,4,7,22 | 27:14 32:18             | 95:17 96:2           |
| <b>laws</b> 53:22        | 40:3,4,8,8              | 33:19 41:14,20          | 97:8 102:25          |
| <b>lawyer</b> 23:20      | 42:11 47:21             | 44:18 50:15             | 111:23 112:9         |
| <b>lawyers</b> 16:7      | 56:4,6,11,13            | 56:7 59:13              | 112:23 113:7         |
| 16:22 17:6               | 58:21 90:9              | 85:19 88:14             | 116:20               |
| <b>learned</b> 118:15    | <b>linkage</b> 39:20    | 98:4,11 118:16          | <b>looked</b> 20:6,9 |
| <b>left</b> 16:3         | 41:23,25 42:16          | 118:16                  | 20:11,13 23:8        |
| <b>leftmost</b> 15:22    | 42:18,25 43:24          | <b>live</b> 6:1         | 24:16,22,24          |
| <b>legal</b> 17:1        | 44:2,18,19              | <b>living</b> 110:10    | 25:2,18,23           |
| 28:17 29:4               | 45:4,8,12,15,17         | 110:18                  | 26:4 27:1,9,12       |
| 103:4,25 121:1           | 115:6,25                | <b>load</b> 53:18       | 27:23 39:18          |
| 124:1                    | 116:10,11               | 57:25                   | 46:23 55:15          |
| <b>lengths</b> 44:20     | <b>linkages</b> 36:14   | <b>loaded</b> 56:13     | 68:15 69:13          |
| <b>letter</b> 20:16      | 40:1 41:7,8,21          | <b>locate</b> 110:12    | 83:14,20 85:4        |
| 121:20                   | 42:1,19 44:4,7          | <b>lock</b> 69:5        | 93:14 99:22          |
| <b>level</b> 9:6 14:11   | 113:15,20               | <b>lockout</b> 67:24    | 110:21 113:9         |
| 29:21 37:3,6             | 114:7                   | 68:14                   | <b>looking</b> 6:9   |
| <b>liability</b> 5:4 7:8 | <b>links</b> 38:23      | <b>long</b> 3:18 32:17  | 23:17 26:1           |
| 7:11,14                  | 39:4,5,21 40:4          | 49:13 59:3              | 41:19 51:13          |
| <b>library</b> 117:24    | 42:12,20 44:5           | <b>look</b> 10:23       | 55:14 62:25          |
| <b>life</b> 3:10,12,18   | 44:20 47:21             | 17:13 18:2              | 70:21 73:11          |
| 67:11 83:2               | 57:9,24 58:6,7          | 23:10,14 28:1           | 89:16 90:12          |

|                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 106:12 110:24<br>116:5<br><b>looks</b> 6:9 15:10<br>21:14 64:2<br>71:12,16 96:12<br>96:16 112:9<br><b>lot</b> 9:21 31:9,17<br>41:5 46:17<br>55:4 56:12<br>57:12 112:7<br><b>lower</b> 31:25<br>38:23 42:20<br><b>lowering</b> 8:1                                                                                                                                              | <b>maintains</b><br>43:14<br><b>major</b> 21:13<br>54:18<br><b>make</b> 14:20<br>39:15 43:23<br>57:6 58:20<br>80:12 86:5<br>89:25<br><b>makes</b> 76:13<br>88:15<br><b>making</b> 65:12<br>87:14<br><b>malewski</b> 77:16<br>77:25 81:21<br>82:12<br><b>manual</b> 28:15<br>64:4,6<br><b>manufacture</b><br>19:6<br><b>manufacturer</b><br>25:11<br><b>manufacturing</b><br>8:2<br><b>mark</b> 11:23<br>12:1,2,6,9,14<br>33:13 70:13<br>95:24 96:6<br><b>marked</b> 12:8<br>12:12,15 23:15<br>23:21 25:24<br>26:5 33:18<br>59:16,19 60:16<br>70:15 96:14,18<br>96:24 113:5 | <b>market</b> 118:1<br><b>marketing</b> 62:7<br><b>markings</b> 11:19<br>26:2 38:1<br><b>markman</b> 6:10<br>6:24<br><b>marks</b> 25:24<br><b>martin</b> 117:20<br><b>mated</b> 90:22<br><b>material</b> 21:8<br>22:22 28:23<br>48:18 56:5<br>57:6 61:19<br>99:14<br><b>materials</b> 21:19<br>22:1,6,17<br>54:17<br><b>mates</b> 117:6<br><b>math</b> 55:9<br><b>mating</b> 85:8,14<br>85:14 99:8<br><b>matter</b> 7:20<br>12:3<br><b>matters</b> 5:2<br><b>mean</b> 19:2<br>35:12 44:10<br>51:12 52:4<br>54:15 57:20<br>60:21 66:17<br>82:25 83:20<br>85:5 89:17<br><b>means</b> 62:23<br>103:16 109:9<br>112:10 | <b>meant</b> 105:11<br><b>mechanical</b><br>29:20 32:16,21<br>37:2 50:16<br>51:5 52:9,16<br>68:8 75:22<br>79:14 89:21,22<br>91:7,10 114:23<br>115:20<br><b>mechanically</b><br>67:24 73:24<br>114:20<br><b>mechanics</b><br>52:13,21<br><b>mechanism</b><br>31:25 32:11,17<br>32:21 35:23<br>36:1,23 37:13<br>37:15 38:5,12<br>38:15,24 39:5<br>39:8,8 40:14<br>40:24 41:24,25<br>42:9,17 44:1<br>44:21 45:15,16<br>45:22 46:2,6,9<br>47:5 49:9,12<br>49:22 50:6,11<br>50:14 55:7,17<br>56:4,4,11<br>57:22,24 58:5<br>58:23 59:7<br>65:12,16,21,25<br>70:2 72:10,14<br>72:21,25 73:15<br>73:18,19 74:7 |
| <b>m</b>                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>m</b> 4:20 8:17<br>23:5 31:24<br><b>mabie</b> 30:13,16<br>30:18<br><b>machine</b> 35:23<br>36:13 37:1<br>38:8 57:2<br>113:14<br><b>machinery</b> 3:14<br>29:15<br><b>machines</b> 49:16<br><b>madam</b> 121:11<br><b>made</b> 11:20<br>25:11,14 31:16<br>47:1 54:17<br>56:5 80:10<br>109:20 122:7<br><b>madison</b> 2:10<br><b>magnet</b> 75:13<br><b>magnets</b><br>100:15 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

|                   |                      |                       |                       |
|-------------------|----------------------|-----------------------|-----------------------|
| 74:13,17 75:2     | 58:15 59:1           | <b>mind</b> 32:9,10   | 87:9,11,13,16         |
| 76:2,5,9,11,20    | 85:8 91:6 94:8       | 32:11 33:24           | 87:17 88:1,1,9        |
| 76:25 77:7        | 95:5,6 98:7          | 38:25 43:22           | 88:19 89:9,12         |
| 78:1 79:25        | 99:7 109:16          | 45:8 49:8             | 90:6 94:11,20         |
| 80:3,6,7,23,24    | 111:7,21 112:2       | 51:20 93:11           | 95:10 99:17,20        |
| 80:24 81:4,11     | 113:13,20            | 111:16                | 99:23 100:2,3         |
| 82:16,19 83:5     | 114:4,5,8,10,24      | <b>minor</b> 30:5     | 100:11,12             |
| 84:6 87:7         | 114:25 115:3         | 34:25                 | 114:11,14,17          |
| 90:15,20,22,25    | 115:10,15,22         | <b>missed</b> 13:6    | 115:5,11              |
| 91:11 92:11       | <b>meier</b> 23:5    | <b>missing</b> 95:21  | <b>motivate</b> 49:20 |
| 94:1,15,19        | <b>member</b> 54:25  | 97:6                  | <b>mount</b> 68:7     |
| 97:18 98:2,5      | 55:2 56:11           | <b>missouri</b> 21:15 | 69:6 91:24            |
| 107:15,19,21      | <b>members</b> 53:15 | <b>mistakes</b> 9:25  | <b>mounted</b> 67:25  |
| 108:1,7,20,22     | 100:7                | <b>model</b> 3:16     | 68:19 69:10           |
| 109:5,12,25       | <b>memory</b> 21:11  | 59:25 60:21           | 75:14,16              |
| 111:19 113:10     | 51:17 97:21,24       | 63:8 69:17            | <b>mounting</b>       |
| 113:21 114:1,3    | <b>mental</b> 10:12  | <b>modified</b> 48:19 | 63:19 66:3,21         |
| 114:13 115:6,7    | <b>mention</b> 24:5  | <b>module</b> 47:13   | 66:22 67:25           |
| 115:14,18,18      | 71:25 98:19          | <b>moment</b> 41:20   | 69:19 75:14           |
| 116:12,13,14      | <b>mentioned</b> 7:6 | <b>momentarily</b>    | 83:9 84:9             |
| 116:15,16         | 26:15 28:3           | 116:25                | 116:9 117:8           |
| <b>mechanisms</b> | 48:5 70:24           | <b>monoxide</b>       | <b>mounts</b> 67:3    |
| 3:14 29:14        | 94:5                 | 25:12 112:5,18        | <b>move</b> 32:2 40:4 |
| 31:16,24 36:9     | <b>mentions</b> 7:17 | 112:21 113:1          | 57:25 58:2            |
| 36:12 37:19       | <b>merchant</b> 24:3 | <b>month</b> 20:18    | 82:17 88:21           |
| 38:9,13 39:1      | <b>mesh</b> 43:17,23 | <b>morning</b> 4:6,7  | 100:1                 |
| 41:2,5,6,9,10     | 47:21 48:7,9         | <b>motion</b> 32:3    | <b>moved</b> 100:9    |
| 41:21 42:1,11     | 114:23               | 43:15 44:15           | 100:10                |
| 42:22 43:6,12     | <b>meshed</b> 45:7   | 54:2 57:17,22         | <b>movement</b>       |
| 43:12,19 44:3     | <b>method</b> 67:6   | 58:8 59:3 66:9        | 102:13                |
| 44:8,9,11,25,25   | <b>michael</b> 17:8  | 66:24 75:23           | <b>moving</b> 39:24   |
| 48:23,25 49:5     | <b>midwest</b>       | 83:7 84:8,21          | 39:25 45:25           |
| 49:16 50:3        | 121:18 124:1         | 85:2,6,17,18,21       | <b>mpep</b> 28:12,14  |
| 52:21 53:19       | <b>milliken</b> 8:15 | 86:2,3,4,6,7,10       | 28:20                 |
| 56:24 57:14       | 8:16 9:12            | 86:16,23 87:6         |                       |

|                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|----------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>multiple</b> 16:18<br>30:4 66:1<br>68:22 86:6<br>87:11 88:5 | <b>nevertheless</b><br>109:23<br><b>new</b> 4:20 31:15<br>49:9,11,15,21<br>49:21,23 50:2<br><b>nice</b> 56:3<br><b>nonlitigation</b><br>18:22<br><b>nonstandard</b><br>46:11,14,21<br><b>normally</b> 39:7<br><b>norton</b> 117:21<br><b>notarized</b><br>121:15<br><b>notary</b> 121:25<br>122:10,18<br>123:15,23<br>124:23<br><b>note</b> 10:12<br>37:24 74:24<br>121:13<br><b>notice</b> 109:14<br><b>notion</b> 81:13<br><b>novel</b> 49:19<br><b>november</b> 21:8<br>21:11<br><b>nuances</b> 46:16<br><b>number</b> 3:17<br>10:7 19:6<br>20:11 24:24<br>31:12 37:9<br>38:13 41:4<br>44:19,24<br>117:23 121:8<br>121:14 | <b>numbered</b><br>39:21<br><b>numbering's</b><br>73:8<br><b>numbers</b> 6:18<br>34:16 123:7<br><b>numeral</b> 41:15 | <b>offering</b> 23:20<br>93:4 98:16<br><b>official</b> 122:15<br>123:21<br><b>oh</b> 11:14 20:5<br>21:5,7 82:10<br>91:4 102:19<br>117:12,14<br><b>ohio</b> 121:2<br><b>okay</b> 4:16,22<br>5:5,8,14,18 6:4<br>6:13 7:6,16 8:3<br>8:7 10:15,22<br>11:4,10,15,19<br>11:22 12:4,11<br>13:2,23 14:1<br>14:17,25 15:3<br>15:6,18,21<br>16:22 17:5,11<br>18:4 19:8,15<br>20:1,9,14,19<br>21:21,25 22:24<br>23:10 25:5,22<br>26:15 27:1<br>28:3 29:1,22<br>30:9,16,25<br>31:20,22 32:22<br>33:12 34:5,9<br>34:20 35:6,16<br>36:2,4 37:7,20<br>39:9 40:16<br>41:11,16 42:2<br>42:14 43:1<br>45:2 46:7,10<br>47:15 48:3,22 |
| <b>n</b>                                                       | <b>n</b> 4:11,20,20<br>7:25 8:17<br>117:16,17,22<br>117:22<br><b>name</b> 4:9<br>111:22 121:6<br>122:3,4,15<br>123:3,4,21<br><b>named</b> 8:20<br>30:20<br><b>narrow</b> 104:25<br><b>narrower</b><br>101:17 102:14<br><b>narrowing</b><br>102:2<br><b>narrows</b><br>101:22 115:24<br><b>ne</b> 1:20 2:4<br><b>nearby</b> 71:19<br><b>necessarily</b><br>86:17,18 87:1<br>87:8<br><b>need</b> 39:5 43:13<br>49:25 76:17<br>106:13 119:13<br><b>needs</b> 66:6<br><b>never</b> 18:25<br>19:11 53:16<br>83:25                                                                                                                 | <b>o</b>                                                                                                             | <b>o</b> 4:11 30:20<br>117:17,22,22<br><b>o910</b> 59:25<br><b>object</b> 105:21<br><b>observations</b><br>118:9,13<br><b>observed</b> 50:22<br><b>obtain</b> 118:7<br><b>obviously</b> 61:9<br>96:11<br><b>occasionally</b><br>28:24<br><b>occlusion</b><br>112:10<br><b>occur</b> 87:19<br><b>occurred</b> 34:12<br>34:21 35:3<br>95:21<br><b>occurring</b><br>94:21 95:11<br><b>october</b> 21:15<br><b>ocvirk</b> 30:20,22<br><b>offer</b> 81:3,7<br>111:11 112:1<br><b>offered</b> 27:2<br>31:15                                                                                                             |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 50:1,20 51:24<br>52:24 53:2<br>54:7,8,11<br>55:22 56:19<br>57:15 59:4,10<br>59:12 60:4,13<br>60:20,24 61:7<br>64:13,21,24<br>65:4 67:1,7,23<br>70:7 71:11,18<br>73:4,9,10<br>74:14,16 75:25<br>77:15 78:16<br>79:1,12 82:11<br>82:17 83:3<br>84:19 86:19<br>88:18 89:19<br>90:18 91:19<br>92:13,21 93:6<br>93:22 94:13<br>95:3,13 96:5,7<br>97:2,7,10<br>98:19 100:20<br>103:22 104:4,6<br>104:7 105:4,13<br>107:14 108:11<br>110:5,17<br>111:10,18<br>112:16 113:8<br>117:9 118:2,4<br>118:19 119:2,4<br><b>omitted</b> 15:17<br><b>once</b> 14:16 44:6<br>58:16,22 | <b>ones</b> 23:3 95:24<br>117:13<br><b>open</b> 113:3<br>118:21<br><b>opened</b> 33:20<br><b>operable</b> 80:11<br><b>operated</b> 65:11<br><b>operation</b> 60:2<br><b>opine</b> 80:17<br><b>opined</b> 61:4<br><b>opining</b> 72:7,17<br><b>opinion</b> 50:21<br>51:3,6 52:8<br>61:8 81:7,10<br>82:11 98:1<br>99:16 106:5,10<br>106:25 107:25<br>109:23 115:13<br>118:25<br><b>opinions</b> 24:24<br>26:10,14 29:2<br>50:20 51:7<br>74:22 80:5<br>81:4 93:2,3<br>98:16 111:11<br>112:2 118:18<br><b>opposed</b> 81:14<br><b>opposite</b><br>100:15<br><b>optical</b> 112:9<br>112:23<br><b>order</b> 12:2<br>48:15<br><b>ordering</b> 119:8 | <b>ordinary</b> 51:10<br>108:2<br><b>orientation</b><br>89:11<br><b>orientations</b><br>47:22<br><b>original</b> 3:19<br>3:20 10:2<br>30:16,18 33:5<br>34:7 48:16<br><b>originally</b><br>32:24<br><b>outdoor</b> 110:10<br>110:18<br><b>outlier</b> 57:7<br><b>output</b> 40:8<br>44:15 54:2<br><b>outside</b> 22:19<br>24:13<br><b>overarching</b><br>54:11<br><b>overcome</b><br>103:8<br><b>overlap</b> 41:5<br><b>own</b> 31:23 81:5<br>83:14,23 91:22<br>105:25<br><b>owned</b> 28:7<br>70:25 71:6<br><b>owner</b> 10:8<br>15:5 | <b>page</b> 3:3,7<br>11:17 12:24<br>13:4,6 14:24<br>17:14 21:23,24<br>22:5,6 24:6<br>29:6,13 33:21<br>34:11,14,15<br>35:10,17 36:2<br>36:5 37:10<br>53:6 60:14<br>62:8 63:13<br>82:18 97:9<br>104:5,15 113:7<br>116:4,16,21<br>117:1,3 121:14<br>121:16 123:7<br>124:3<br><b>pages</b> 120:11<br><b>pair</b> 38:23<br>42:21 44:9,9<br>44:10,21<br>100:15 114:17<br><b>paper</b> 22:16<br><b>papers</b> 57:11<br><b>paragraph</b><br>21:22 29:13<br>31:20 35:7,22<br>51:13 52:1<br>53:6 57:16<br>60:14,18 62:11<br>62:24 64:13,24<br>65:4,6 67:7<br>71:20 72:2<br>73:14 74:5,10<br>76:1 77:9,11 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>p</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>p.m.</b> 102:21,21<br>119:16                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 78:17 79:18<br>80:14 81:12<br>82:22 84:5<br>90:3 91:5,12<br>91:15 93:6,22<br>93:25 94:2,13<br>98:19 100:25<br>103:1,3 104:18<br>105:5,8,17,18<br>106:12 107:15<br>108:11,23,25<br>109:7 110:5<br>118:2,5<br><b>parenthetical</b><br>78:17<br><b>part</b> 29:2 38:12<br>39:8 48:13<br>54:1 62:20<br>81:6 82:15<br>84:1 90:21<br>91:22 93:12<br>96:21 115:10<br>123:9<br><b>particular</b><br>14:24 40:6<br>43:9,9,20<br>46:25 67:22<br>68:6 81:23<br>112:1,20<br>115:24,25<br><b>particularly</b><br>112:14<br><b>parties</b> 17:15<br>25:15 120:14<br>120:16 | <b>parts</b> 28:20<br>66:25 67:2<br>69:9 90:22<br>97:6 98:20,24<br><b>party</b> 10:8<br><b>passed</b> 86:22<br><b>past</b> 104:2<br><b>patent</b> 3:10,12<br>3:17 5:2 7:12<br>7:22,24 8:8,16<br>9:7,14,19,23<br>10:8 11:7,8<br>12:10,13 15:5<br>26:1 27:12,20<br>28:7,10,15,17<br>28:18 52:8<br>70:17,22,25<br>71:5,12 73:21<br>74:18 75:7<br>76:8 77:16<br>78:18,21 79:13<br>81:25 93:21<br>96:17 101:24<br>104:20 106:4<br>109:3 110:21<br>110:24,25<br><b>patented</b> 27:15<br><b>patents</b> 7:18,21<br>8:20,25 9:8,10<br>11:7 12:3<br>20:24 22:25<br>23:2,15,24<br>25:24 26:5<br>27:8,13,13<br>49:24 50:1 | 52:7,9 61:4,5<br>61:10,13 72:4<br>78:24 79:10<br>83:21 91:18,21<br>95:1,7,16<br>96:23 104:12<br>108:4 110:1<br><b>path</b> 58:5 68:12<br>88:2 90:6<br><b>pause</b> 40:10<br>95:13<br><b>pc</b> 2:3<br><b>peachtree</b> 1:20<br>2:4<br><b>people</b> 39:6<br>44:4<br><b>perfectly</b> 53:16<br>53:24<br><b>perform</b> 58:20<br><b>performs</b> 46:20<br><b>period</b> 91:15<br><b>periodically</b><br>9:16<br><b>permanent</b><br>79:25 80:3,7,9<br>80:24 81:11,13<br>81:15,18,23<br>82:1,6,8,13,16<br><b>permissible</b><br>56:2 88:1<br><b>permit</b> 82:13<br>88:2<br><b>permitted</b> 84:2<br>88:6 89:7 | <b>person</b> 5:22<br>36:22 45:11<br>50:23 51:3,10<br>61:12,16,21<br>65:19,24 67:6<br>68:6 74:1 78:5<br>94:25 95:3<br>107:1,9 108:2<br>109:24 110:3<br>115:4,9<br><b>personal</b> 83:14<br>83:23 91:23<br><b>personally</b> 92:3<br>122:11 123:15<br><b>ph.d.</b> 1:14 3:2<br>4:1,12 121:9<br>122:4,9 123:4<br>123:13 124:20<br><b>phone</b> 121:3<br><b>phrase</b> 48:3<br>52:1 72:13<br>78:1,10 81:4<br>82:18 87:2<br>89:15,16 90:12<br>107:1 109:5<br><b>physical</b> 22:6<br>22:11 83:6,16<br>90:4 114:20<br>115:21<br><b>physically</b><br>39:24 60:21<br><b>physics</b> 112:22<br><b>pick</b> 44:20<br><b>picture</b> 74:12 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>pictures</b> 96:3<br/>96:24</p> <p><b>piece</b> 54:7</p> <p><b>pieces</b> 88:10,25</p> <p><b>pin</b> 89:23,24</p> <p><b>piston</b> 58:1</p> <p><b>pitch</b> 47:13<br/>116:14</p> <p><b>place</b> 16:1 69:5<br/>84:3 88:16</p> <p><b>places</b> 71:25</p> <p><b>plaintiff</b> 1:6 2:2<br/>14:14 17:15<br/>25:3,6,24</p> <p><b>plaintiff's</b> 3:9</p> <p><b>plastic</b> 54:7,16<br/>54:23,25</p> <p><b>plate</b> 83:9</p> <p><b>play</b> 58:19,24</p> <p><b>please</b> 4:8,17<br/>31:21 73:7<br/>97:9 103:1<br/>110:6 113:7<br/>121:12,12</p> <p><b>plethora</b><br/>117:14</p> <p><b>point</b> 24:5 27:6<br/>32:13 33:4<br/>37:20 39:6<br/>58:15 71:14<br/>91:25 93:18<br/>99:15 100:24<br/>105:13 108:9<br/>109:15 118:18</p> | <p><b>points</b> 22:5,17<br/>107:8</p> <p><b>pole</b> 100:15</p> <p><b>popular</b> 117:21</p> <p><b>portable</b> 1:4<br/>17:16 121:6<br/>122:3 123:3</p> <p><b>portion</b> 52:14<br/>66:20,23 68:13<br/>73:20 74:20<br/>75:13,15 82:3<br/>82:4 85:15,21<br/>85:22 88:13<br/>98:24,25 100:7<br/>100:8,9,10</p> <p><b>portions</b> 31:17<br/>69:4 75:17<br/>92:24 99:1,4<br/>100:7 110:16</p> <p><b>posita</b> 94:18</p> <p><b>position</b> 101:9</p> <p><b>possibility</b><br/>69:11</p> <p><b>possible</b> 68:18<br/>69:12</p> <p><b>post</b> 21:14</p> <p><b>power</b> 3:11,13<br/>67:15</p> <p><b>practical</b> 46:20</p> <p><b>practice</b> 26:5<br/>54:3</p> <p><b>pratt</b> 24:8,12<br/>110:9</p> <p><b>pratt's</b> 24:6<br/>50:24 51:7</p> | <p>110:22</p> <p><b>pre</b> 26:16</p> <p><b>preceded</b> 72:21<br/>73:1,4</p> <p><b>precisely</b> 64:1</p> <p><b>predate</b> 61:13</p> <p><b>predated</b> 93:15<br/>93:20</p> <p><b>predates</b> 32:6</p> <p><b>predicated</b><br/>90:19</p> <p><b>preface</b> 84:12</p> <p><b>prefer</b> 4:14</p> <p><b>preliminary</b><br/>109:8,19</p> <p><b>preparation</b><br/>22:2</p> <p><b>prepare</b> 23:20<br/>28:21</p> <p><b>preponderance</b><br/>103:9,13,16</p> <p><b>present</b> 13:16</p> <p><b>presumption</b><br/>103:7,18,20,23</p> <p><b>prethreaded</b><br/>86:13,15</p> <p><b>pretty</b> 49:12,18<br/>51:7 54:10<br/>56:6,11 61:20<br/>66:2,11 104:24<br/>117:7</p> <p><b>prevent</b> 68:9,18<br/>69:2,9 83:15<br/>95:9</p> | <p><b>prevented</b><br/>67:24 84:1</p> <p><b>preventing</b><br/>94:21</p> <p><b>prevention</b><br/>82:19 83:5<br/>92:15 94:15,19<br/>95:5,11 108:22<br/>109:5,12,16,25<br/>111:19,21<br/>112:2</p> <p><b>prevents</b> 83:8<br/>83:16 90:5</p> <p><b>previous</b> 69:25</p> <p><b>previously</b><br/>76:11</p> <p><b>print</b> 77:18</p> <p><b>printed</b> 34:15</p> <p><b>printer</b> 95:19</p> <p><b>printing</b> 11:20<br/>30:6,6 34:12<br/>34:19,21 96:11<br/>97:5</p> <p><b>printings</b> 30:5<br/>34:24 35:3,4</p> <p><b>prior</b> 17:10<br/>22:20 27:5,7<br/>27:20,22 31:9<br/>32:14 83:20<br/>91:20 92:9<br/>106:4,7,9,12,18<br/>106:20 107:16</p> <p><b>priority</b> 28:2<br/>61:5,10 91:17<br/>93:9,13,15,21</p> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>probably</b> 5:3<br>7:5 14:20<br>19:22 20:1<br>21:7 37:25<br>38:7 48:21<br>50:18 62:5<br>76:14 86:24<br>89:1,6,13 98:4<br>102:17 103:25<br>106:13 112:14<br>114:3<br><b>procedure</b><br>122:5 123:5<br><b>process</b> 8:2 9:8<br>54:22<br><b>produce</b> 44:15<br>66:9,24<br><b>produced</b> 9:22<br>95:18<br><b>product</b> 5:4<br>7:11,14 25:14<br>59:24 60:21<br>62:7,23 64:2<br>67:3,5 68:15<br>69:21 71:11<br><b>production</b><br>121:16,18,23<br><b>products</b> 7:8<br>19:7,15,19<br>20:6,9,12<br>24:17 25:17,18<br>25:22,23 26:2<br>26:4,10,24<br>28:9 | <b>professional</b><br>91:23<br><b>professor</b> 4:14<br>4:16<br><b>profile</b> 7:25<br>8:13 9:11<br><b>profiles</b> 44:6,22<br>114:24<br><b>project</b> 18:3<br><b>projection</b><br>117:6<br><b>proofing</b> 31:19<br><b>propane</b> 25:11<br><b>proper</b> 56:20<br><b>properties</b> 8:11<br><b>prosecuting</b><br>24:2<br><b>prosecution</b> 9:7<br>10:3 22:8,9<br>72:3 104:7,12<br>109:1,6,22<br><b>protect</b> 112:20<br><b>provide</b> 29:5<br>81:10 110:13<br><b>provided</b> 13:25<br>29:6 52:8 60:9<br>60:11<br><b>provisional</b><br>23:10<br><b>proximity</b><br>75:18<br><b>public</b> 122:10<br>122:18 123:15<br>123:23 124:23 | <b>publication</b><br>111:16 112:1<br>112:20<br><b>publications</b><br>111:4,8,11<br>112:13<br><b>published</b><br>32:24 33:2,6<br>112:25<br><b>publisher</b> 30:7<br><b>pull</b> 63:20 64:6<br><b>pulleys</b> 40:20<br><b>purpose</b> 62:4<br><b>purposes</b> 39:23<br>60:5<br><b>push</b> 88:15<br>89:5<br><b>pushed</b> 86:21<br><b>pushing</b> 89:9<br><b>put</b> 14:2 77:1<br>78:22 79:4<br><b>putting</b> 15:21<br><b>q</b><br><b>qualify</b> 14:18<br>69:25 74:20<br><b>quay</b> 4:19<br><b>question</b> 17:1<br>22:14 32:12<br>40:11,12,13<br>45:2,7 57:15<br>60:10 86:25<br>90:10 92:6<br>102:5 105:22<br><b>questions</b> 9:3<br>33:25 53:4 | 102:23 119:3,6<br>120:9<br><b>quick</b> 41:11<br>51:18 70:18<br>75:21<br><b>quite</b> 8:14 45:1<br>54:17 55:10<br>60:12 100:4<br>117:23<br><b>quotation</b><br>110:8<br><b>quote</b> 31:25<br>36:12 53:9<br>57:17 72:12<br>75:7 77:15,20<br>77:21 79:14,19<br>83:4,5 91:11<br><b>quotes</b> 35:25<br>84:5,6<br><b>r</b><br><b>r</b> 4:11,11,11,11<br>4:20 7:25 23:5<br>30:20 73:16<br>74:25 75:3<br>117:17,18,22<br>120:1<br><b>rather</b> 47:25<br><b>ratio</b> 40:7,22<br>43:14<br><b>reactivated</b><br>82:2<br><b>read</b> 34:14 50:1<br>51:19 61:18<br>71:4 77:2<br>111:3 119:5 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 122:5,6,12<br>123:5,6,17<br><b>reader</b> 36:25<br><b>reading</b> 49:24<br>51:23 63:24<br>74:11 75:21<br>107:1 121:20<br><b>real</b> 40:12<br>41:11 53:15,15<br>53:19,24 57:3<br><b>really</b> 27:17<br>36:21,24 37:2<br>38:16 43:11,16<br>49:3,17 52:9<br>55:7 81:10<br>85:13 90:3<br>99:9 105:24<br>106:23 114:19<br><b>rearranged</b><br>48:14<br><b>reason</b> 13:19<br>32:9 36:18<br>106:22 107:17<br>121:15 123:8<br>124:3<br><b>reattachment</b><br>50:14 82:19<br>83:5,15 84:1<br>92:15 94:14,19<br>94:21 95:5,9<br>95:11 108:22<br>109:5,12,15,25<br>111:19,21<br>112:2 | <b>rebuttable</b><br>103:7<br><b>recall</b> 7:13 9:15<br>18:1 23:12,13<br>23:17 26:1,21<br>27:1,4,23<br>28:22,25 29:1<br>29:3 57:12<br>60:12 61:6<br>63:12 64:1,20<br>65:22 67:4,21<br>68:5 69:16<br>72:22 84:4<br>94:4 98:12<br>103:21 109:22<br>110:19,24<br><b>receipt</b> 121:19<br><b>receive</b> 9:16<br><b>recent</b> 10:20<br>13:12,15 29:25<br><b>recently</b> 25:10<br>25:12<br><b>recess</b> 59:15<br>102:21<br><b>recite</b> 103:10<br><b>recited</b> 106:11<br>108:1 115:15<br>116:4<br><b>recognition</b><br>53:23 57:3<br><b>recognize</b><br>53:19 59:21<br>70:19<br><b>recollection</b><br>18:20 23:22 | 50:9,12 70:11<br>71:7<br><b>recommended</b><br>19:5<br><b>record</b> 4:9 10:4<br>10:11,11,15<br>11:10,15 38:2<br>70:17 95:23<br>96:1,13,22<br>113:12 118:21<br>119:10 123:9<br><b>recreational</b><br>25:9<br><b>redrawn</b> 9:14<br><b>reduce</b> 112:11<br><b>reduced</b> 120:9<br><b>reducing</b> 8:1<br><b>reed</b> 73:15,18<br>73:23 74:7,13<br>74:17 76:2,9<br>100:21<br><b>reed's</b> 73:24<br><b>refer</b> 38:22<br>41:7 43:24<br>44:4 73:23<br>82:22 93:22<br><b>reference</b> 28:4<br>28:7,24 29:23<br>40:3 60:17<br>71:19 78:4<br>79:9 121:8<br>122:2 123:2<br><b>referenced</b><br>29:14 122:11<br>123:15 | <b>references</b> 23:1<br><b>referred</b> 13:12<br>17:20 39:20<br>75:2 117:4<br><b>referring</b> 47:18<br>65:18 78:24<br>84:13 88:23<br>89:20 90:3<br>99:7<br><b>refers</b> 83:6 84:6<br>89:22 91:11<br><b>reframe</b> 55:11<br><b>refresh</b> 97:21<br>97:23<br><b>regard</b> 28:24<br><b>regular</b> 120:15<br><b>reinforced</b> 55:1<br>55:2<br><b>reinholtz</b> 1:14<br>3:2,8 4:1,10,14<br>4:15 121:9<br>122:4,9 123:4<br>123:13 124:20<br><b>relate</b> 52:14<br>79:19 92:18<br><b>related</b> 19:6<br>27:13 56:16<br>81:16 84:15<br>92:14<br><b>relative</b> 32:3<br>39:24 40:5<br>57:17 58:2,8<br>66:9 83:7 84:8<br>84:21 85:2,6<br>85:18,20 86:7 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 86:10,16,23<br>87:6,9,17 88:1<br>88:19 89:12<br>94:20 99:17,19<br>99:23 100:2,3<br>100:10,11,12<br>114:11,13<br>115:5,11<br><b>relay</b> 73:15,18<br>73:19,23,25<br>74:7,13,17<br>75:3,13,14,15<br>75:17,19,23<br>76:2,9 100:21<br><b>relevant</b> 20:4<br>61:13,16,23<br>77:25 79:13<br>81:13,22,24<br>98:20 99:11,12<br>102:3 111:15<br><b>reluctant</b> 45:3<br><b>rely</b> 93:19<br><b>relying</b> 92:4<br>93:2 98:14<br>99:3 111:10<br>112:1<br><b>remember</b> 5:10<br>26:25 28:4<br>110:20 111:9<br>113:10<br><b>remounted</b><br>69:3<br><b>remounting</b><br>68:10 | <b>removed</b> 87:24<br><b>removes</b> 67:15<br><b>render</b> 80:8,9<br><b>renders</b> 67:15<br><b>repeatability</b><br>87:19<br><b>repeatable</b> 86:5<br>87:17<br><b>repeated</b> 57:23<br>87:11<br><b>replaced</b> 109:8<br>109:11<br><b>report</b> 35:21<br>36:20 61:24<br>71:21 80:5,14<br>103:4 104:4,16<br><b>reporter</b> 33:17<br>46:4,7 102:16<br>102:19 105:18<br>105:20 119:7<br>119:12 122:7<br><b>represent</b><br>72:24 120:11<br><b>represents</b><br>118:24<br><b>reproduce</b> 9:24<br><b>request</b> 123:9<br>123:11<br><b>require</b> 70:1,3<br>81:25 86:11<br>107:11<br><b>required</b> 62:23<br>64:4 99:20<br>121:25 | <b>requirement</b><br>62:20,22<br><b>requires</b> 81:15<br>81:18<br><b>requiring</b><br>55:23<br><b>reserve</b> 119:4<br><b>residential</b> 4:18<br><b>resideo</b> 18:16<br><b>resistance</b><br>112:23<br><b>resistant</b> 32:1<br>53:10 58:11<br>59:5<br><b>resistive</b> 53:14<br><b>respect</b> 107:15<br>113:1<br><b>respond</b> 9:17<br><b>responding</b><br>24:13<br><b>result</b> 58:2 82:5<br>82:8 118:8<br>120:17<br><b>resulting</b> 79:14<br><b>resume</b> 18:2<br><b>retailer's</b> 64:10<br><b>retailers</b> 62:6<br><b>retained</b> 3:20<br><b>retention</b> 20:16<br><b>return</b> 59:8<br><b>returned</b><br>121:19<br><b>review</b> 21:19<br>23:8 26:9,24<br>28:20 50:7 | 91:20 93:18<br>98:8 110:14,15<br>110:15,16<br>119:5 121:13<br>122:1 123:1<br><b>reviewed</b> 20:24<br>20:25 22:7,10<br>22:18,25 23:3<br>23:7 26:15,19<br>27:6 52:7<br>61:19 76:13,16<br>93:12 104:11<br>108:18<br><b>reviewing</b> 21:8<br>29:1<br><b>revision</b> 31:7<br>32:23 61:1<br><b>revolute</b> 38:24<br>42:21 44:5<br><b>rewrites</b> 31:14<br><b>richardson</b> 2:3<br>16:11,21,22<br><b>ridges</b> 94:8<br><b>right</b> 6:11,24<br>7:8,18 10:5<br>11:2,12,17<br>12:16 13:5,9<br>14:5 15:7,11<br>15:16 16:5,8<br>16:11,16,25<br>21:6,13,21<br>22:3,7,20,24<br>23:24 24:9,12<br>24:12,18 29:15<br>30:1,3,10 31:2 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 32:4,25 33:3<br>35:1 36:6,9,16<br>37:11 41:13,21<br>42:7 46:8<br>47:16,24 48:4<br>48:5 49:2<br>50:25 51:5,6<br>51:13 52:2<br>54:9 55:23<br>56:9 61:25<br>62:13,24 63:22<br>64:16 65:3,5<br>67:3 69:10<br>70:12,22 71:9<br>71:25 72:5,10<br>76:6,21,25<br>77:7,22 78:12<br>78:13 79:3,10<br>79:15,18,22<br>80:13,17 81:1<br>82:6,17 84:10<br>87:22 91:3,8<br>91:12 92:8<br>93:9 94:15,22<br>96:20,25 97:8<br>97:19 100:4<br>101:4,7 102:22<br>103:5,10<br>104:13,20<br>106:19 108:4,9<br>108:13,24<br>109:2,4,6<br>110:10 113:3,5<br>113:16 114:1<br>114:14 115:1 | 116:17 119:8<br><b>rigid</b> 32:1<br>53:10,13,16,24<br>54:17 59:5<br><b>rigidity</b> 53:17<br>56:17,20,24<br>58:9<br><b>road</b> 40:1<br><b>robotic</b> 7:22,23<br>52:22<br><b>robotics</b> 31:16<br><b>roman</b> 41:15<br><b>root</b> 81:16<br><b>rotate</b> 89:10<br><b>rotated</b> 83:17<br><b>rotating</b> 94:11<br><b>rough</b> 119:11<br><b>roughly</b> 10:13<br><b>round</b> 88:12<br><b>row</b> 15:22<br><b>rows</b> 14:3<br><b>rules</b> 122:5<br>123:5<br><b>rush</b> 35:14<br><br><b>s</b><br>s 1:24 4:11,20<br>7:25 120:20<br>121:16 123:8,8<br>124:3<br><b>safe</b> 67:16<br><b>safety</b> 3:10,12<br>25:13 27:13<br>83:2 84:15<br>113:1 | <b>saying</b> 14:19<br>70:1 81:20<br>83:4 92:2<br>99:25<br><b>says</b> 11:12,17<br>13:15 15:6<br>22:22 31:23<br>34:15 36:12<br>62:12 63:4,18<br>64:14 65:10<br>67:13,23 72:2<br>74:6 75:7,13<br>76:4,22,23<br>77:5 79:24<br>80:5,6 90:9<br>91:5 97:14<br>113:13 118:6<br><b>science</b> 49:12<br>53:25 57:5<br>113:17<br><b>scope</b> 105:21<br><b>screw</b> 85:3,12<br>85:14 86:11,14<br>94:9,9 116:14<br>116:15<br><b>screwdriver</b><br>64:15,22 67:14<br>69:23<br><b>screwed</b> 85:22<br><b>seal</b> 122:15<br>123:21<br><b>sealed</b> 3:11,13<br>3:15 65:6,10<br><b>search</b> 27:12,20<br>27:21 | <b>second</b> 16:3<br>35:21 51:25<br>62:8,24 67:13<br>75:14,17 94:17<br>95:15 98:25<br>100:8,9 118:5<br><b>section</b> 29:5<br>35:8,8 36:1,8<br>36:20,21 82:18<br>97:13 103:4<br>104:5 109:14<br><b>sectional</b> 38:7<br><b>see</b> 5:14 10:23<br>13:8 14:24<br>15:25 16:2<br>17:14,17 18:2<br>34:8 36:5<br>39:20 40:4,10<br>41:11,17 46:12<br>46:23 49:25<br>50:2,7 53:11<br>54:23 55:19,20<br>57:18 63:2,6<br>63:15 65:1,2,8<br>65:14 67:11,17<br>68:2,14 69:22<br>70:2,5 71:2<br>73:15 76:12,13<br>78:19,24 82:20<br>82:23 83:10<br>84:23 85:24<br>86:24 90:17<br>93:23 98:8,22<br>99:7 101:2<br>118:10 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>seeing</b> 27:4<br>69:16 84:4<br><b>seem</b> 96:3<br><b>seen</b> 20:2,5<br>29:25 60:20,23<br>69:14 70:9<br>71:11,15 83:13<br>83:19,25 84:24<br>88:4 90:18,24<br>92:17,21,24<br><b>segmented</b><br>85:14<br><b>self</b> 65:12,16,20<br>65:25<br><b>seltzer</b> 102:16<br><b>semicolon</b><br>63:20<br><b>senior</b> 29:21<br><b>sense</b> 9:7 61:20<br>74:14 112:7<br><b>sensor</b> 25:12<br>51:8 52:2,5,14<br>52:15,19,23<br>112:8,9<br><b>sensors</b> 51:5<br>52:10 111:1<br>112:8,14,17,22<br>112:24<br><b>sentence</b> 31:23<br>36:24 64:13<br>65:10 67:13,23<br>72:2 83:4<br>84:12 91:5,14<br>94:17,24 113:9<br>113:13,19 | 116:4 118:5<br><b>separate</b> 8:6<br>16:17 64:6<br>85:23<br><b>sequence</b> 34:16<br><b>serve</b> 108:6<br><b>set</b> 70:12 77:10<br><b>setting</b> 43:13<br>43:25<br><b>seven</b> 5:20 6:8<br><b>several</b> 33:2<br>35:4 37:8<br><b>shafts</b> 47:23<br><b>shape</b> 43:9,20<br>44:13,15,22<br>46:16,18,19<br>114:21<br><b>share</b> 116:25<br><b>sheet</b> 3:15<br>11:11 60:1,17<br>61:1,25 121:14<br>123:7,10,18<br>124:1<br><b>shoulder</b> 33:25<br><b>showed</b> 96:4<br><b>showing</b> 79:16<br><b>shown</b> 14:4<br>38:6 40:18<br>74:7 76:5<br>103:8 121:17<br><b>shows</b> 38:11<br>103:3<br><b>side</b> 103:25<br><b>sign</b> 119:5 | <b>signature</b> 12:24<br>12:25 120:20<br>121:15<br><b>signed</b> 20:16,20<br>24:20 118:12<br>118:25 122:13<br>123:18<br><b>significant</b><br>31:14,16 48:18<br>54:1 57:1,8,13<br>58:11,14<br><b>significantly</b><br>58:3<br><b>signing</b> 121:20<br><b>similar</b> 9:18<br>51:7 70:7 72:4<br>117:7<br><b>similarly</b> 95:21<br><b>simple</b> 45:1<br>49:15,16 64:14<br>65:12 69:23<br><b>simpler</b> 44:4<br><b>sincerely</b><br>121:22<br><b>single</b> 39:2,4<br>42:11 60:1<br><b>sir</b> 4:6 59:17<br>121:11<br><b>sit</b> 111:25<br><b>situation</b> 9:18<br>42:14 56:14,19<br>84:19,21 86:19<br><b>situations</b><br>16:14 | <b>six</b> 5:20 6:8,20<br><b>skill</b> 36:22<br>45:11 50:24<br>51:4,10 61:12<br>61:16,21 65:19<br>65:24 67:6<br>68:6 74:1 78:5<br>94:25 95:4<br>107:1,9 108:2<br>109:24 110:3<br>115:4,9<br><b>slider</b> 37:13<br>38:11 44:6<br>55:16 56:4<br>101:4,10,25<br>102:13<br><b>slight</b> 53:21<br><b>slightly</b> 73:8<br>89:2,24<br><b>slip</b> 11:11<br><b>sloppy</b> 79:5<br><b>slots</b> 85:9<br>116:12<br><b>small</b> 67:14<br><b>smaller</b> 88:14<br><b>smart</b> 3:16<br><b>smoke</b> 3:16<br>19:21,22 24:17<br>25:8 27:24<br>54:8 62:12,25<br>65:11 69:13,18<br>84:14,16,20<br>91:6,24 92:3,9<br>92:19 112:5,11<br>112:15 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>smyrna</b> 4:20<br><b>snap</b> 87:2,5,15<br><b>snubber</b> 7:24<br>8:13 9:11<br><b>software</b> 31:12<br><b>solutions</b> 121:1<br>124:1<br><b>somebody</b> 25:3<br>32:19 45:11<br>110:13<br><b>somewhat</b><br>53:20 57:3<br><b>sorry</b> 11:14<br>13:6 38:22<br>46:4 63:18<br>66:15 77:1,3<br>77:13 78:22<br>79:1 86:8<br>107:6 110:6<br>113:23 116:23<br>117:15<br><b>sort</b> 14:2 22:18<br>26:16 55:8<br>117:10<br><b>sorts</b> 38:15<br><b>sounds</b> 104:1<br><b>south</b> 8:15<br><b>spanning</b> 16:24<br><b>spatial</b> 31:16<br><b>speak</b> 23:19,23<br>24:1,2<br><b>speaks</b> 109:20<br><b>specific</b> 22:18<br>45:12 46:19<br>78:13 92:11 | 102:11 111:16<br><b>specifically</b><br>10:19 23:13<br>28:1,22 62:17<br>74:4 112:25<br><b>specifications</b><br>60:3<br><b>specify</b> 115:14<br><b>spell</b> 4:8<br><b>spelled</b> 76:3<br><b>spelling</b> 74:25<br><b>spend</b> 74:21<br><b>spent</b> 118:16<br><b>splash</b> 49:10<br><b>split</b> 10:24<br><b>spoken</b> 19:9,12<br><b>spread</b> 86:21<br><b>spring</b> 59:4<br><b>springs</b> 59:2<br><b>sprockets</b><br>40:20<br><b>spur</b> 43:2,4,5<br>43:17,22 45:21<br>45:23 46:11,14<br>46:21,22 47:4<br>47:20,25<br><b>standard</b> 19:24<br>19:25 46:22<br>62:22<br><b>standards</b><br>18:24 19:4,5,5<br>19:9,12,14,17<br>19:18 20:3,8<br>29:5 46:25<br>47:1,6,7,9,12 | 47:12 92:14,16<br>92:17,18,21,25<br>93:3,11,14,20<br>103:4<br><b>start</b> 20:14<br>33:25 57:5<br><b>started</b> 13:19<br>20:12<br><b>starting</b> 75:12<br>104:5<br><b>starts</b> 11:11<br>41:15 62:25<br>65:6 67:10<br>76:19 113:9<br><b>state</b> 4:8 120:4<br>122:10 123:15<br><b>stated</b> 120:8<br><b>statement</b> 5:25<br>6:3 54:11<br>83:12,22<br>106:23 122:13<br>122:14 123:19<br>123:19<br><b>statements</b><br>105:5,8 108:12<br><b>states</b> 1:1 34:15<br>70:22<br><b>stays</b> 88:16<br><b>stickers</b> 96:24<br><b>stiffness</b> 56:7,8<br>56:15<br><b>stop</b> 94:20<br><b>stopping</b> 95:10<br><b>stops</b> 83:7 | <b>street</b> 1:20 2:4<br>2:10<br><b>strength</b> 47:3<br><b>strong</b> 103:19<br><b>structural</b><br>109:10<br><b>structure</b> 38:5<br>38:16 84:2<br>86:22 102:9<br>103:10 107:8<br>115:19<br><b>structures</b><br>79:21 81:8<br>84:7 102:9,12<br>102:15 107:3<br>107:10,11<br>108:6,8 109:16<br>110:2 115:21<br><b>student</b> 36:25<br><b>students</b> 8:11<br>9:20 31:11<br>57:4<br><b>studied</b> 24:23<br>73:20 92:16,23<br>105:25<br><b>study</b> 27:16<br>36:9 93:17<br>114:5<br><b>studying</b> 58:19<br><b>subclasses</b><br>115:3<br><b>subject</b> 7:20<br>117:15<br><b>subscribed</b><br>122:10 123:14 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 124:21<br><b>subsection</b><br>26:22<br><b>subsequent</b><br>34:8<br><b>subsequently</b><br>73:25<br><b>subset</b> 37:1<br><b>subsidiary</b><br>25:16<br><b>sufficient</b> 102:8<br><b>sufficiently</b><br>102:8 103:10<br><b>suit</b> 23:24 27:8<br>49:24 50:1<br>78:24 79:10<br>83:21 91:21<br>95:1,7 104:12<br>108:4 110:1<br><b>suite</b> 2:9 121:2<br><b>superficial</b><br>71:14<br><b>superficially</b><br>71:16<br><b>superior</b> 121:1<br><b>supplemental</b><br>118:8<br><b>supply</b> 3:11,13<br><b>support</b> 3:8<br><b>supposition</b><br>67:2<br><b>sure</b> 6:22 17:2<br>25:16 27:19<br>33:10 34:1<br>39:15,18 55:10 | 70:5 77:3<br>80:12 90:17<br>100:19,24<br>102:17,19<br>112:24<br><b>surface</b> 42:22<br>43:20 44:6<br>114:24<br><b>surfaces</b> 43:7<br>43:15 44:12,13<br>46:16,19 66:8<br>99:9 114:21<br>116:20<br><b>surprise</b> 73:2,3<br><b>surprised</b> 9:23<br>98:11<br><b>suspect</b> 112:19<br>112:20<br><b>switch</b> 64:6<br>67:14,19 72:14<br>72:16,21 73:1<br>73:5,24 75:6<br>76:5,10,14,20<br>76:25 77:7,22<br>77:25 78:8,11<br>78:11,13 82:9<br>100:21 101:10<br>107:18,21,24<br>108:20<br><b>switched</b> 73:1<br><b>switches</b> 63:20<br>79:13,21 81:9<br>82:2,5,7,12,13<br><b>sworn</b> 4:2<br>122:10,13 | 123:14,18<br>124:21<br><b>symbol</b> 19:23<br><b>system</b> 80:21<br>84:25 90:7<br>97:14,25 98:2<br>98:4,10,12,17<br>101:25 102:4,7<br>106:11,16,17<br>107:2 114:20<br>114:23 117:8<br><b>systems</b> 51:5,8<br>52:2,5,6,16,19<br>52:23 98:7,9<br>98:15 106:20<br>112:8 115:8<br><br><b>t</b><br><br><b>t</b> 4:11 117:22<br>120:1,1<br><b>tab</b> 64:6 68:12<br>90:5<br><b>table</b> 41:15<br><b>tabs</b> 63:20<br>79:14,21 81:9<br>82:2 85:10<br>86:20 87:15<br><b>take</b> 35:11<br>44:14 47:22<br>53:5 58:5,16<br>59:10 70:18<br>96:2 116:22<br><b>taken</b> 114:15<br>114:22 120:8<br><b>takes</b> 53:23 | <b>talk</b> 10:5 21:21<br>29:9,10 41:14<br>49:1,17 55:25<br>57:7 80:25<br>98:6 100:25<br>112:13,17<br><b>talked</b> 56:14<br>85:19 93:6<br>100:21 104:10<br><b>talking</b> 7:11<br>13:2 39:16<br>42:24 45:6,20<br>47:7 50:17<br>51:16 72:9<br>78:4 80:13<br>91:15 93:7<br>94:1,2,7,14,24<br>102:6 103:19<br>106:15 109:7<br>113:18 115:20<br>116:3,9 117:1<br><b>talks</b> 43:19<br>53:10 57:17<br>73:14 74:5<br>76:1,15 101:4<br>101:9<br><b>taught</b> 8:9<br><b>tech</b> 8:9,10<br>9:19 30:15<br><b>technical</b> 60:3<br><b>technique</b><br>116:9<br><b>techniques</b><br>90:19 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                   |                                        |                                  |                      |
|-----------------------------------|----------------------------------------|----------------------------------|----------------------|
| <b>technologies</b><br>18:10      | <b>testimonial</b><br>6:23             | <b>theme</b> 47:4                | 58:10 60:11,23       |
| <b>technology</b><br>27:15 110:17 | <b>testimony</b> 5:15<br>5:15,19,21,25 | <b>theoretical</b><br>53:18 55:8 | 61:11,20,22          |
| <b>tedious</b> 31:18              | 6:1,3,13 7:10                          | <b>theoretically</b><br>44:14    | 64:3,11 65:20        |
| <b>teeth</b> 43:10                | 8:24 13:12,24                          | <b>thereto</b> 120:9             | 66:2,11 68:21        |
| 47:22                             | 15:7,14,24                             | <b>thing</b> 38:15               | 69:7,11 71:24        |
| <b>tell</b> 34:11 95:20           | 16:15,19,23                            | 39:16 55:20                      | 74:1,24,25           |
| 112:19                            | 17:10 21:15,19                         | 80:13                            | 75:2 78:2,23         |
| <b>ten</b> 6:21 49:8              | 21:20 22:24                            | <b>things</b> 14:19              | 80:20 81:6           |
| 103:23                            | 24:11 34:23                            | 22:18 50:21                      | 83:22 86:9,10        |
| <b>tend</b> 14:19 44:7            | 110:9,12,15,16                         | 57:3 91:2 93:7                   | 86:17,25 88:8        |
| 44:8                              | 122:6,7 123:6                          | 104:11 106:1                     | 88:20 89:13          |
| <b>tension</b> 56:8,15            | 123:9,12                               | 108:13 111:14                    | 90:16,21,23          |
| 56:15,21                          | <b>texas</b> 1:1                       | <b>think</b> 5:3 7:14            | 91:22 95:12          |
| <b>term</b> 31:25                 | <b>text</b> 11:16 31:7                 | 9:18 10:20                       | 96:7 98:3,3,10       |
| 72:4,7,9,17                       | 31:13 32:6,10                          | 13:21 14:15                      | 99:14,18,21,22       |
| 79:20,24 80:5                     | 35:20 49:17                            | 15:19 16:17,19                   | 100:4,17,23          |
| 80:21 89:22                       | 50:18 52:20                            | 18:19 19:23                      | 102:9 105:1          |
| 97:13,14,18,20                    | 55:20 98:10                            | 20:24 21:7                       | 106:8,13 107:7       |
| 98:17 102:4,6                     | 99:3                                   | 22:1,8,21                        | 108:19,23            |
| 108:23 109:12                     | <b>textbook</b> 29:10                  | 23:12 25:13,14                   | 109:18,20            |
| <b>terminology</b>                | 29:17,19 31:1                          | 25:20 26:7,12                    | 110:2 111:15         |
| 17:3                              | 31:18,24 37:4                          | 26:13 27:14,17                   | 113:2,5 115:2        |
| <b>terms</b> 80:1,2,16            | 37:25 48:13,16                         | 27:23 29:24,25                   | 115:24 116:18        |
| 80:25 98:1                        | 52:19 58:13                            | 30:20 32:16                      | 117:16,25            |
| 105:11,12                         | 98:16 99:11,14                         | 33:8 34:13,17                    | 118:15,17,22         |
| 108:15 109:9,9                    | 113:4 116:21                           | 34:18 35:25                      | 118:23,24,25         |
| 109:11 115:13                     | 117:10                                 | 38:1,14 39:5,7                   | <b>thinking</b> 20:2 |
| 115:18,23                         | <b>textbooks</b>                       | 42:4,19 45:3                     | <b>third</b> 24:5    |
| <b>testified</b> 4:3 6:4          | 117:10,23                              | 45:10 48:20                      | 36:11 48:13,23       |
| 6:20 7:1,15                       | <b>thank</b> 59:18                     | 49:11,18 51:2                    | 63:4,17              |
| <b>testifying</b> 7:7             | 105:20                                 | 51:3,8,9,24                      | <b>thirty</b> 121:19 |
| 7:13                              | <b>thanks</b> 96:20                    | 52:12,15 55:4                    | <b>thomas</b> 71:9   |
|                                   |                                        | 55:24 56:3,25                    | <b>thought</b> 69:12 |
|                                   |                                        |                                  | 106:24               |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>thread</b> 85:12<br>85:14 94:9,9<br><b>threaded</b> 66:20<br>68:13 69:3<br>85:13<br><b>threads</b> 68:22<br>83:18 85:3<br><b>three</b> 11:3,23<br>25:4 40:4<br>42:12 45:24<br>47:20 85:13<br>98:20,24 101:9<br><b>time</b> 5:8,22 9:9<br>20:25 21:14<br>31:1 32:10,13<br>32:15 34:17<br>49:13 61:22<br>73:4 74:21<br>76:4,10,13,20<br>76:25 77:6<br>78:6 86:7<br>87:12 91:15<br>94:2,4 95:6<br>113:4 118:16<br><b>timeframe</b><br>13:17 91:18<br>92:11<br><b>times</b> 4:24 5:18<br>6:7,16,20 7:4<br>10:7 16:14,24<br>29:10 30:8<br>86:6<br><b>timestamp</b> 92:7<br><b>title</b> 42:6 48:4 | <b>titled</b> 41:21<br>46:11 55:16<br><b>today</b> 75:22<br>116:3,9 118:25<br>119:11<br><b>together</b> 14:3<br>83:17 84:8<br>85:16 88:10<br>89:6 91:3<br><b>took</b> 16:1 35:20<br><b>tool</b> 64:14<br>67:13 69:23<br><b>tools</b> 31:9<br>64:21<br><b>tooth</b> 47:3,13<br><b>top</b> 11:16 13:4<br>13:5 36:6<br>65:22 72:22<br>98:13<br><b>topic</b> 53:5<br>92:13<br><b>topical</b> 48:20<br><b>topics</b> 37:3<br>48:15<br><b>touch</b> 112:5<br><b>tractable</b> 57:6<br><b>train</b> 48:8,11<br><b>trains</b> 36:15<br>48:2,4,6<br>113:16,21<br>114:7<br><b>transcribed</b><br>122:7<br><b>transcript</b> 3:20<br>119:6 120:7,12 | 121:12,13<br>122:5,12 123:5<br>123:11,17<br><b>transmission</b><br>48:10 112:12<br>112:24<br><b>trial</b> 7:1<br><b>trials</b> 6:24<br><b>tried</b> 50:7 69:6<br>71:14<br><b>triple</b> 85:12<br><b>true</b> 6:25 35:20<br>55:6 72:18,25<br>79:24 81:3<br>82:7 109:17,18<br>120:11<br><b>trying</b> 45:10<br>46:17 80:19<br>90:8<br><b>turn</b> 71:20<br><b>twenty</b> 34:18<br><b>twist</b> 66:11<br>68:23,23 69:1<br>87:14,15 116:2<br>116:8 117:7<br><b>twisted</b> 66:21<br>100:10<br><b>twisting</b> 66:24<br>67:3 85:17<br>94:20 95:10<br><b>two</b> 7:17 10:13<br>11:1,7 39:5<br>40:20 43:17,22<br>44:12 45:23,25<br>47:21,23 48:9 | 52:7 61:3 66:5<br>66:8,25 88:3<br>88:10 89:6,8<br>89:23 90:22<br>91:2 96:23<br>98:25 100:8<br>104:12 114:21<br>114:22<br><b>type</b> 34:25<br>41:25 42:9<br>43:12 44:15,25<br>45:15,16,21<br>46:1,3,6,8 47:7<br>47:9 49:9,12<br>49:22 68:9<br>73:24 91:7,10<br>93:23 102:12<br>113:25 115:25<br>116:13,14,15<br>116:16 117:5<br><b>types</b> 38:22<br>48:2,23 49:4<br>49:15,16 50:2<br>55:3<br><b>typewriting</b><br>120:10<br><b>typically</b> 29:20<br>42:19 44:3,19<br>48:9 53:22<br>54:17,23 58:12<br>59:6 62:21<br>66:7,16,17<br>68:16,22,23<br>73:19,23 85:1<br>85:9 87:25 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 88:8<br><b>typo</b> 75:4<br>118:22<br><b>typographical</b><br>34:25 35:5<br><b>typos</b> 30:6                                                                                                                                                                                                                                                                                                                                                                                                     | 94:18<br><b>understanding</b><br>26:3,13 27:14<br>28:6,8,16,18<br>32:24 52:12<br>61:11 62:2<br>70:25 72:19<br>75:21 101:15<br>101:19 103:12<br>103:15 105:10<br><b>understood</b><br>14:22,22 32:17<br>32:20 78:6<br>94:25 95:4<br>106:3 107:20<br>108:3,13,16,17<br><b>underwriters</b><br>18:23,24 19:1<br>19:13<br><b>unit</b> 62:12<br>64:15 67:25<br>68:19 69:10,24<br><b>united</b> 1:1<br>18:10 34:15<br>70:22<br><b>university</b> 8:12<br><b>updating</b> 31:7<br><b>use</b> 13:4 28:15<br>28:19 47:24<br>52:10 56:11<br>59:2 64:14<br>69:22 72:4<br>75:6 79:21<br>81:8 85:1<br>99:14 115:18 | <b>used</b> 17:3 29:19<br>37:25 40:6<br>43:10,13 50:18<br>52:13 55:2,21<br>59:7 64:22<br>72:13 74:3<br>82:3 84:20<br>85:3 89:16<br>91:6 92:9 94:8<br>109:9 112:17<br>115:11,15,23<br>116:6<br><b>useful</b> 62:5,6<br><b>user</b> 19:12,21<br>64:4 83:8<br><b>uses</b> 62:15<br>72:20,25<br>102:12<br><b>using</b> 67:13<br>115:6 116:19<br><b>usually</b> 13:21<br>39:22 42:11 | <b>vehicle</b> 25:9<br><b>velocity</b> 40:7,7<br>40:21 43:14<br><b>verified</b> 96:22<br><b>verify</b> 12:23<br>33:22 61:14<br>72:9<br><b>veritext</b> 121:1,8<br>124:1<br><b>veritext.com.</b><br>121:18<br><b>version</b> 29:25<br>30:1 33:5<br>96:17 102:14<br><b>versions</b> 31:8<br>96:22 97:3<br>106:14<br><b>versus</b> 10:8<br>15:1 22:16<br>55:22 56:15<br><b>video</b> 11:25<br><b>view</b> 37:3,6<br>38:7 50:24,25<br>62:4 70:4<br>90:14 95:3<br><b>viewpoint</b><br>44:17 64:10<br><b>vii</b> 41:15<br><b>violating</b> 47:1<br><b>virginia</b> 8:9,10<br>9:19 30:14<br><b>vs</b> 1:7 |
| <b>u</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>v</b>                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>u</b> 4:19 7:25<br>117:18<br><b>u.s.</b> 6:4,14<br>77:16 78:18<br><b>uh</b> 22:12 27:11<br>38:20 41:18<br>42:23 45:18<br>75:9,11 76:17<br>85:5 86:1<br>89:15 95:22<br><b>uicker</b> 117:18<br><b>ul</b> 19:16,18,23<br>19:24,24 20:3<br>20:7 47:7,9<br>92:14,16,17<br><b>uncover</b> 60:6<br><b>under</b> 35:22<br>53:18 57:25<br>62:24 63:14<br>65:5 101:16<br>120:10<br><b>undergoes</b><br>58:23 87:13<br><b>understand</b> 8:7<br>14:2 32:12<br>36:23 45:5<br>58:22 61:12,21<br>74:12 90:8 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>v</b> 30:20 121:6<br>122:3 123:3<br><b>v8</b> 38:10<br><b>variables</b> 44:20<br><b>variation</b> 47:4<br><b>variations</b> 41:7<br>48:2<br><b>varies</b> 54:4<br><b>various</b> 24:17<br>52:10 117:2<br><b>vast</b> 22:20                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

|                       |                        |                        |                       |
|-----------------------|------------------------|------------------------|-----------------------|
| <b>w</b>              | <b>way</b> 14:2 18:5   | <b>went</b> 5:25       | 26:4 29:2             |
| <b>w</b> 4:20 117:17  | 34:13 42:4             | 80:20 86:14            | 31:18 43:7            |
| <b>waco</b> 1:2       | 57:23 67:5             | <b>west</b> 2:10       | 60:5 70:10            |
| <b>waived</b> 121:20  | 69:1,8,9 72:5          | <b>western</b> 1:1     | 78:7 83:24            |
| <b>waldron</b>        | 78:13 79:13            | <b>withstand</b>       | 84:7 92:22            |
| 117:17                | 80:10 82:1             | 54:19                  | 112:8 116:19          |
| <b>wall</b> 82:9      | 86:4 87:16             | <b>witness</b> 3:2 5:6 | 117:8                 |
| <b>walter</b> 1:4     | 90:24 91:24            | 6:2 10:6 12:4,6        | <b>worked</b> 8:13    |
| 17:15 121:6           | 95:8 102:13            | 12:9,13 34:6           | 9:20 10:8             |
| 122:3 123:3           | 111:14 112:10          | 35:16 41:17            | 14:13 16:13,21        |
| <b>want</b> 9:2 11:24 | 115:17 116:8           | 46:8 51:22,24          | 17:5 18:9,12          |
| 14:1 17:13            | 117:7                  | 59:12 96:16,20         | 18:15,18,22           |
| 35:11 42:4            | <b>ways</b> 66:1,3,18  | 105:24 121:9           | 19:1,13 31:11         |
| 47:23 49:14,20        | 68:24 78:15            | 121:12 122:1,4         | <b>working</b> 14:9   |
| 49:23 54:24           | <b>we've</b> 7:10      | 122:11 123:1,4         | 16:8,11 17:6          |
| 72:8 74:9             | 17:19 23:21            | 123:15                 | 20:12,14 51:4         |
| 76:18 80:12,19        | 78:12 96:8,22          | <b>witness's</b> 119:5 | <b>works</b> 49:8     |
| 95:25 102:18          | 116:2,5,9              | <b>witness'</b> 121:15 | <b>world</b> 15:1     |
| 116:7                 | 118:21                 | <b>word</b> 42:1 44:1  | <b>worm</b> 47:16     |
| <b>wanted</b> 9:24    | <b>wear</b> 8:1        | 62:15,17,19            | <b>wrap</b> 102:23    |
| 20:22                 | <b>weed</b> 2:9 3:4,20 | 72:16,20,25            | <b>wrist</b> 7:22,23  |
| <b>wash</b> 15:1      | 4:5 10:5 11:22         | 73:5 97:18             | 8:8 9:19              |
| <b>washington</b>     | 12:5,11,16             | 98:3,4 109:9           | <b>write</b> 49:20,23 |
| 5:22                  | 33:13,19 34:1          | 115:14,18              | <b>writing</b> 31:18  |
| <b>watson</b> 23:5    | 34:3,9 35:11           | 116:6,22               | 104:18                |
| 28:3,10 70:17         | 35:14,17 41:19         | <b>wording</b> 62:21   | <b>writings</b> 111:5 |
| 71:5,8,12,19,25       | 46:6,10 51:25          | <b>words</b> 27:21     | 111:20 112:5          |
| 72:20 73:6            | 59:10,13,17            | 32:18 48:22            | 112:16                |
| 74:17 76:8            | 70:16 96:21            | 50:18 74:11            | <b>written</b> 5:25   |
| 77:10,15 81:21        | 102:17,22              | 89:8 94:10             | 57:11 112:25          |
| 82:12 100:21          | 105:19 106:5           | <b>work</b> 5:4 8:4,5  | <b>wrong</b> 39:18    |
| 105:16,25             | 119:2,9,11             | 8:11 9:21 10:6         | <b>wrote</b> 52:4     |
| 106:1                 | <b>weeks</b> 21:5      | 10:20 17:19,22         | 91:14 117:15          |
| <b>watson's</b> 72:12 | <b>welcome</b> 59:17   | 18:1,21 19:2           |                       |
|                       |                        | 19:20 20:22            |                       |

| <b>y</b>               |
|------------------------|
| <b>y</b> 4:19,20       |
| <b>yarn</b> 8:2        |
| <b>yeah</b> 10:25      |
| 21:7 27:25             |
| 33:1,17 34:3           |
| 34:13 35:13,24         |
| 37:23 40:12            |
| 50:15 51:18            |
| 54:10 55:10            |
| 69:25 73:12,14         |
| 86:9 89:3,19           |
| 90:8 92:6,16           |
| 93:15 94:7             |
| 95:14,24 96:12         |
| 105:9 106:22           |
| 107:7 109:18           |
| 113:22 117:1           |
| <b>year</b> 5:16 15:21 |
| 21:8,9 67:11           |
| <b>years</b> 5:3 8:9   |
| 10:21 13:22            |
| 16:15,25 32:20         |
| 49:1,8 103:24          |
| <b>z</b>               |
| <b>z</b> 4:11 117:16   |
| <b>zero</b> 116:14     |

Federal Rules of Civil Procedure

Rule 30

(e) Review By the Witness; Changes.

(1) Review; Statement of Changes. On request by the deponent or a party before the deposition is completed, the deponent must be allowed 30 days after being notified by the officer that the transcript or recording is available in which:

(A) to review the transcript or recording; and

(B) if there are changes in form or substance, to sign a statement listing the changes and the reasons for making them.

(2) Changes Indicated in the Officer's Certificate. The officer must note in the certificate prescribed by Rule 30(f)(1) whether a review was requested and, if so, must attach any changes the deponent makes during the 30-day period.

DISCLAIMER: THE FOREGOING FEDERAL PROCEDURE RULES ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY.

THE ABOVE RULES ARE CURRENT AS OF APRIL 1, 2019. PLEASE REFER TO THE APPLICABLE FEDERAL RULES OF CIVIL PROCEDURE FOR UP-TO-DATE INFORMATION.

VERITEXT LEGAL SOLUTIONS  
COMPANY CERTIFICATE AND DISCLOSURE STATEMENT

Veritext Legal Solutions represents that the foregoing transcript is a true, correct and complete transcript of the colloquies, questions and answers as submitted by the court reporter. Veritext Legal Solutions further represents that the attached exhibits, if any, are true, correct and complete documents as submitted by the court reporter and/or attorneys in relation to this deposition and that the documents were processed in accordance with our litigation support and production standards.

Veritext Legal Solutions is committed to maintaining the confidentiality of client and witness information, in accordance with the regulations promulgated under the Health Insurance Portability and Accountability Act (HIPAA), as amended with respect to protected health information and the Gramm-Leach-Bliley Act, as amended, with respect to Personally Identifiable Information (PII). Physical transcripts and exhibits are managed under strict facility and personnel access controls. Electronic files of documents are stored in encrypted form and are transmitted in an encrypted fashion to authenticated parties who are permitted to access the material. Our data is hosted in a Tier 4 SSAE 16 certified facility.

Veritext Legal Solutions complies with all federal and State regulations with respect to the provision of court reporting services, and maintains its neutrality and independence regardless of relationship or the financial outcome of any litigation. Veritext requires adherence to the foregoing professional and ethical standards from all of its subcontractors in their independent contractor agreements.

Inquiries about Veritext Legal Solutions' confidentiality and security policies and practices should be directed to Veritext's Client Services Associates indicated on the cover of this document or at [www.veritext.com](http://www.veritext.com).