that that needle will very slowly keep moving and that the stress is diminishing, as shown by this other needle. Now, while you are noticing that flow I will try the crushing of these. Just two or three blocks of certain amalgams that are different from each other to show you something of the difference in strength of different amalgams. This we regard as a soft amalgam (puts one block in micrometer). Now as I begin running up the stress you will notice those needles of the micrometer parting. There, it is broken at 200 lbs. I have another of the same. These blocks were made with as much care as I was capable of, and they ought to break at a pretty definite figure. (Another block put in of same material and breaks at 205.) Now, I will take another amalgam, one made from an alloy of 69 of silver, 27 of tin, 3 of copper and 1 of nickel. This will illustrate to you the influence of nickel in alloys. (Puts in micrometer and breaks at 80 lbs.) Now, I will take another alloy that is very nearly of the same formula, that is about 68 of silver, 26 of tin, 4 of copper and 1 of zinc. You see practically the zinc replaces the nickel in the alloy, and I want you to notice carefully the parting of the needles in this case. (Breaks at 350 lbs.) We will try another block of that. (Makes another trial of same substance, which breaks at 390 lbs.) The difference in the flow is very remarkable in these alloys. In the tests of that alloy that I have made there has been regularly an expansion of the batch from which these blocks were made of ½ point. (Tries another block of same. Breaks at 465 lbs.) I generally expect blocks made from that alloy to break at about 400 lbs. Some of them have broken at a little less than that, and I want to say that if any of you undertake to make these blocks for the first time, and get them to break within 50 lbs. of each other, you will do very well. These blocks are 8-100th of an inch square. When I first began making blocks for tests I found that I could not make blocks out of the same mix of amalgam that would break anywhere near each other, and I was disgusted with myself, but after careful study and by using care in the handling of the mass and in the packing of it I got better results. Well, that is enough to show you that there are great variation in the strength of amalgam and also that there is great variation in the individual blocks made of the same mix. We can make a block that will bear a stress of 400 lbs., or out of the same mix with amalgam apparently perfectly packed, we may make a block that will break at 100 lbs. or 150 lbs., depending on the manipulation. But I cannot go into manipulation now. We will notice these instruments again. (Refers to dynometer in which an alloy was under pressure.) You see the amount of flow. You see that the pressure we applied at 60 lbs. has been reduced by the shortening of the block to 50 lbs., but the shortening of the block continues. Now, gentlemen, gold don't do