

Feb. 9, 1910.

Dr. F. S. McKay,

Colorado Springs, Colorado.

Dear Doctor:-

I am very glad to know from your letter which I received this morning, that you received the slides all right, and also that you are making some progress in the matter of getting started properly in the examination work, and I hope it may pan out in good shape.

I think probably you are right about not taking this subject to the Denver meeting. Public discussion of it had better be with-held until things are in more satisfactory shape in Colorado Springs. Of course private discussion of it is all right, but where there is danger of its being published, it had better be cut out.

Now a word as to the method of preparation of those specimens that have been infiltrated with shellac. I enclose a card on which I have made a rude picture of a incisor tooth with the root cut away, dividing it into two parts, (a) and (b), an explanation of which is written on the card. The cut surfaces where it is divided at (e) are ground smooth. Then it is placed in the shellac solution and left there sufficiently long, heating up to 140 or 150 degrees occasionally during the process, to facilitate the infiltration. The piece is then laid on a bit of paper and allowed to dry until the shellac is hard. Then the face where it is divided at (e) is ground on a stone until the shellac is removed from the surface. After this, this face made by a cut through at (e), is laid upon a disk, after placing balsam upon it, and forced down

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with a spring that will give about twenty-five pounds pressure, and is allowed to remain there for several hours at a temperature of 140 to 150 degrees F. It is then ^{when cold} in condition for grinding.

You will see from this that it is not a ground section that is infiltrated, but it is infiltrated from the side of practically one-half of the tooth. This is done especially in order that the enamel that we consider normal may have the same opportunity precisely to become infiltrated, as that which we regard as abnormal. I have not tried infiltration through the membrane covering the surface of the tooth. I have wanted to do that, but have not had material for it. The pieces of teeth that I now have do not seem to me suitable for this experiment. The person from whom they came was old enough so that the membrane is mostly worn off, and it would not make a fair test.

In dissolving out the color I have used pieces the same as those illustrated on the card, and of about similar thickness. They become a clear white. I put two of the best of these on the disk to grind, and had an accident with them and lost them. Accidents, you know, will occur in the best of families. I was very sorry, but it could not be helped.- the first grind in this series that I have lost. So that you will see that this dissolving out is practically done in a full one-half of the tooth, not a ground section. None of the infiltrations have been done in thin sec-

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tions, but always in the thick pieces illustrated on the card.

If there is any further explanation that I can make,
please write me.

Very truly,

G.V.B.