

cannot answer. It will burn; I cannot say it will burn very savagely. I have seen many other ways of doing it but I do not think you will get it out as clean as you will by the solar.

Mr. Heise—I have tried putting two old combs on top of each other in the solar extractor; with old combs that brood has been reared in very often it won't work; with new combs it will.

Mr. Chrysler—I have tried getting wax out of old combs with the solar extractor and I did not find it satisfactory. As for very old combs it is very unsatisfactory. If we would break up the old combs and soak them in water and then use them in the sun extractor I think we would do a great deal better, but the steam arising from the heat caused by the sun inside of the extractor appears to so sweat the glass on the extractor that it will not melt them satisfactorily at all, and if we have a current under the glass to carry that off we do not get the heat. I have thoroughly tried putting the old combs in a sack and putting them into a large boiler and boiling them for hours, and then squeezing that sack with strips of wood perhaps $\frac{3}{4} \times 1$, and also another set of strips across, putting on a heavy weight to press it all together. I have even failed in that way to get it out satisfactorily. It is not nearly as satisfactory as the steam wax extractor: I always find particles of wax mixed up in the refuse. What I do get from the old comb so melted up is generally very dark and very unsatisfactory; that got from the steam wax extractor is very much superior.

Mr. McEvoy—The best extractor that I have seen anywhere is Mr. Hughes', of Barrie; he has got an arrangement. He can explain it.

Mr. Hughes—It would be a pretty hard thing for me to explain it. I can coil two layers of comb right in on their edge. It is done by steam. We use a coal oil stove; I can run it with one burner or three, whichever I like. The water is underneath, and we put the combs in a basket with perforations; we turn on the steam and it melts the wax right out. I wire all my frames, and I can shake the frames right out and leave the refuse in it. There is a small trough runs right around the side; it starts at the back and slants to the end and down to the side and down to the centre. It is something on the same principle as the old steam extractor. Only a great deal simpler, and I do it with coal oil instead of steam. I use the same extractor for melting wax; I can melt 200 pounds at once. I have a tube up the centre with perforated metal, and the steam passes through the

comb and melts everything up and there will not be any wax in it when it comes out of it. I have tried to see if there was any wax in the refuse and I could not find any. I never burned the refuse that came from my extractor; I threw it out. I never examined it with a microscope.

Mr. Armstrong—The refuse will burn fiercely if there is no wax in it at all, because I have tried it. I put my refuse into a sack and into a box with holes bored along the front, having the box on a slant, and I put all the power onto a screw, that I have in connection with it, that I can put on and the refuse that comes from it will burn.

Mr. Hoshal—Did you ever examine it under the microscope?

Mr. Armstrong—No, I did not.

Mr. Lang—I have an extractor that I have shown here at the Industrial Exhibition; I use it for various things; I call it the combination wax extractor. I think I could render more combs with it than any wax extractor I ever saw. It is made a boiler shape; it takes up three lids on the common stove, and from the time I start, when I get the water boiling and steam going, I can put in fifty square feet of comb, cover it up and when that is pretty well run out I put in about fifty more; then if I think there is quite a bit of sediment and dirt in the boiler I let it run perhaps for a couple of hours. The centre of it is raised and there is a tube about three inches in diameter all the way through the centre and a cap on top. I can let the steam out at the top or I can shut it down and make it come around the boiler in the inside. I have steam in the centre and all around. In three hours from the time I start to put the old comb in it is done and I take it off and set it to one side and start over again. The wax I run out in the first place I run over again by itself and my work is done.

Mr. Hoshal—Mr. President, I was only asking questions for personal information. It is one of those questions that I have been stuck over considerably, and I confess to a failure to my own satisfaction along that line. I have had no experience with the solar extractor. I use steam. The best way I find in using a steam wax extractor is not to put it on the stove at all, but to take a great big boiler to cover the top of your stove, if you have got enough comb, and put a little water into it, put your comb into it and melt it, then put your steam extractor on where you can keep it hot, dip it out of the boiler into the extractor and you save an immense amount of time by doing it in this way.

(To be continued.)