"THE SAVING OF WAX."

National Bee-Keepers' Association.

The following discussion took place at the last meeting of the National Bee-Keepers' Association on the above subject. It will be found very interesting. The paper was prepared by Mr. E G. Brown, of Sergeant Bluff, Iowa:

Wax is a secretion from the glands of the abdomen of the bee, and while its production is largely voluntary, it requires the consumption of a large quantity of honey to produce it. Various estimates range from six to sixteen pounds of honey being required to produce a pound of wax. The large amount of honey consumed in its production, combined with its varied uses, makes it one of the valuable products of the apiary. It is used in many places where no other materials can be substituted. For apicultural purposes there can be no substitute, and many of the large cathedrals use it exclusively for candies, as other wax or lighting materials cause a sediment to accumulate on oil paintings, which is very injurious to their beauty and durability, and wax also burns with a much steadier and clearer light.

It is also used extensively for dental and medical purposes, and in shoe polish and floor wax, and in polishing fine woodwork and stone.

It has nearly a steady market at a price of about thirty cents a pound, and if a bee-keeper is careful of his scraps of comb and hive scrapings he will find it will accumulate very rapidly.

The cappings from extracted honey are perhaps the greatest source of production, as they are nearly pure wax, and when carefully rendered produce the purest and best quality of wax. Old combs that for some reason or another have become undesirable for further use and patches of drone comb cut from the corners of the regular brood comb, furnish a large amount of wax.

Ten Langstroth frames will, when properly rendered, produce from two and a half to three and a half pounds of wax, or equal to 20 or 25 full sheets of medium brood foundation, and a chemical analysis would show that there ought to be nearly four pounds. For this reason there is no economy in using old, crooked or broken combs, and it will generally be found advisable to change one's supply of combs every eight or ten years, discarding one out of every eight or ten every year, as the wax will pay for the rendering and the new foundation, and he will be able to produce a better, clearer grade of honey, and in an infected locality will be less subject to disease.

Another source of accumulation is from the scrapings from the hives and frames, as the bees almost always seem to have a little extra wax on hand to tuck away in the corners, or on top of the frames, or between them in the form of burr combs.

In the spring when the bees are using large quantities of sealed honey they seem to want a place to store the extra wax from the cappings and for this reason pile it on top of the frames or build burr combs between them, and unless these are kept scraped off they generally cause some trouble in handling the combs and, if left until the honey flow comes on, a large amount of it will probably find its way into the super and cause dark inferior looking cappings where comb honey is produced.

The simplest method of rendering is the sun melter, and while this produces the best quality it does not get nearly all the wax, as it obtains just the free wax that will drain out of the scrapings and old combs, yet I believe every bee-keeper should have one of these in his yard as a catch-all for scraps and bits of combs, and if he is a little careful he can in a short time accumulate many times over the cost of the melter in wax saved in this manner. This form of rendering is by far the most practical for the small

bee-keeper, and then by
gum for a year or so he
enough of this to either s
some other way. But be
dry.

The most complete and
way to render large qu
comb and slumgum is by
water or steam. In or
wax entirely out of the n
it is necessary to have
pressure and essential that
or slumgum be thoroughl
kept at a high temperatu
entire operation. Where t
ranged that the slumgum
below the boiling water
it is best to apply the pr
as possible and then rele
the slum gum to boil up a
press again.

The only material that
satisfaction for press sack
burlap, and in order to hav
the necessary pressure the
very heavy and strong.
woven material is used th
be forced out, as the slumg
the cloth, and even the best
very rapidly.

One of the most rapid
dering wax in large quantit
a hot water tank heated by st
and using a steam heat und
cake. The great drawback
is the expense, which would
yond the means of a man
have a large quantity of wa
and also other use for his st
The capping melter, while
the best possible quality of
practical because of the
apply sufficient heat to melt t
not darken the honey.

Be sure that all wax stu
escraps of old comb, cappings
and solar melter slumgum—ar
as there is nothing that
quicker than this material wl