of the body has been employed in changing water into vapor, thus keeping at 98 5 the temperature of the body.

With the negro, the sun's heat is absorbed by his black skin, which heat is changed into sweat producing power, and which escaped vapor actually keeps the negro cooler than if his skin were white. Here some one says "wouldn't the negro sweat more and be cooler if he wore dark clothing instead of white. ?"

Experiment 3. Place your finger for a minute into your mouth or under your arm, where a physician ascertains the temperature of the body. The temperature there is 98.6. Remove your finger and place it for a minute into water of temperature 98.5 ; watch results, you speedily remove it from the water, hence we conclude that heat from living tissue manifests itself in another way than heat from dead tissues. One seems to be changed in sweat producing power ; the other into sensation of heat through nerve terminations.

          - R. KNECHTEL.

Walton, Ont.

SUGGESTIONS FOR A NEW HIVE.

AS soon as the swarming season begins I intend to set up a hive, but as I have no cellar to winter in and no time to make clamps, I must perforce try to get a hive which will be safe to winter in on the summer stands.

My idea of such a hive is as follows: For size of frames I like your Combination much the best. It is most like the English Standard, with which I did good work, but which is just a little shallow, or rather too long for the depth. I think your Combination frame would answer better than any I have seen or read of. I like, however, to use the W.B.C. metal ends which I believe are unknown here, so I must try and do without them.
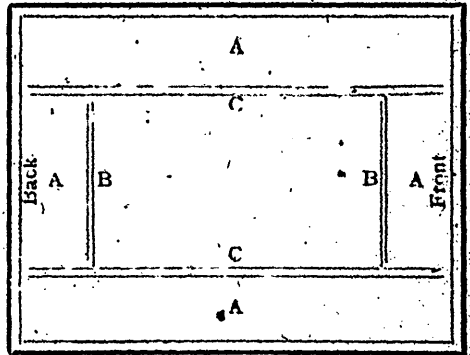
I should prefer to take *outside* measurement of frames as the standard ; say, top bar fifteen and a half inches long and seven-eighths thick ; sides eleven and a half inches long five-eighths inch thick ; bottom bar thirteen inches long three-eighths thick, making frame outside thirteen inches long by eleven and seven-eighths deep *under shoulder* and about seven-eighths inches wide.

By taking outside measure one is sure of having the frames fit the hive, while the inside measure is always approximately correct whatever thickness of stuff is used in making.

Then for the hive. The bottom board should be after the pattern of the Cowan hive, with entrance cut out of it three-eighths inch deep, sloping up as soon as it reaches the inner front wall.

For the inside of the hive this is the plan I have thought out :

This, as you can see, is not drawn to scale. The spaces "A" are intended to be four inches wide clear. The bottom of the front one would have to be stopped with a piece of thin board to prevent bees making their way up there. Frames to fit closely inside them and enclosed with cotton or other stuff nailed on the sides, and then the space inside stuffed with dry sawdust, chaff, or cork dust would fill them in winter, and, I think, be sufficient protection against frost and cold.

The frames would rest on the pieces BB, the sides CC coming level with the top of frames. Rabbets, sawcut, and metal rest for frames as in your make of hives.

The outside walls to come one inch lower than inside walls, and to slip down over bottom-board, thus doing away with the objectionable plinth of the Cowan hive. With this exception the bottom-board would be that of the Cowan.

The roof would slip over the body in like manner and be shaped either like Cowan's or like your Combination. The second story to be like that of Mr. Cowan, merely a "lift" for the roof, leaving plenty of room inside for either "supers" or an additional lot of frames for extracting.

If you think my idea worth using you are welcome to it, only if you *should* make a small fortune out of it please remember that I am only a poor country parson.

I believe that if this hive worked well many would gladly get them in spite of extra cost, to avoid the nuisance of carrying into the cellar.

I am, sir, yours faithfully,

    (REV.) ROBT. W. RAYSON, M.O.B.K.A.

Lombardy, Ont., 3rd May, 1889.

By the way, sir, why not suggest to "Ama-