

bright-red hive-stands and the straw color of the hives make a very pretty combination in an apiary.

It may be also stated that dark shades are apt to burn off more by the effect of the sun than the lighter shades.

We have thought best to make some extracts from the readings we have made. They not only confirm in some cases what we have said, but they will be found to give other additional facts.

IMPORTANCE OF GOOD PAINT.

We are probably more indebted to paint than to any other article for the preservation of surfaces that are exposed to the elements; and it is therefore desirable to use only the best. Notwithstanding the experiments and trials that have been made with other materials, thus far nothing has been found to take the place of white lead (carbonate of lead) and linseed oil. Owing to the high cost of these articles other metals have been repeatedly tried, and even more extended experiments have been made to substitute some other oil for linseed, but without success, and they still hold their supremacy for painting purposes. The carbonate of lead contains, in addition to the metallic lead, a certain percentage of carbon and oxygen, and just sufficient hydrogen to give it the proper spreading quality. Linseed oil also contains carbon, oxygen, and hydrogen, and hence its affinity for the lead, causing the two to unite perfectly. The natural formation of carbonate of lead, however, is such that it has a tendency to chalk off; and the more advanced authorities in paints employ the use of zinc oxide to correct this tendency; and experience has proven that this combination of lead and zinc insures a more durable paint than lead alone.

As white paint is more subject to being soiled from dust, smoke, etc., (the favorite painting materials are in colors), the most durable colors are the iron oxides; but these are usually too dark in color to be pleasing to the eye. Chromates of lead, i. e., yellow and green, are used largely in varying tints and shades. Combinations of different pigments are used in almost endless variations. Probably there is no color that is more of a favorite, however, than ochre; and as it combines perfectly with white lead, it makes a good paint. Ochre is a substance, the best grades of which are found in France. It is composed of alumina, silica, and hydrated oxide of iron. From the latter it obtains its peculiar rich yellow color. Many pleasing tints are made by combining ochre with white lead; and although it may not perhaps be indorsed by the æsthetic as the color "par excellence," it is always a reliable and favorite color, and is more largely used than any other color of its class.—From the Forest City Paint Co., Cleveland, Ohio.

Hastings' Lightning Ventilated Bee Escape.

THIS illustration is a sectional view of the Lightning ventilated Bee Escape, of which read following description.

Fig. 1, shows the escape complete, ready for the board. C is the perforated top, which allows free ventilation from the hive to the supers. A is the top opening which the bees enter on leaving the supers.

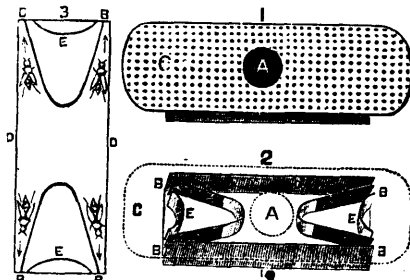


Fig. 2, shows the escape with the top removed. A is an outline of top entrance. B B B B are the outlets from the escape to the hive. C an outline of top plate; D D are side walls, and E E are circular end walls.

The ground plan shows the bees passing out through the four passages toward B., each bee pushing against the spring as it passes out. It is impossible for them to return, there being only space enough for a drone to leave, between the ends of E E and the side walls D D, and the springs hang in the centre, between the above mentioned walls. By simply placing a suitable board, with bee space top and bottom, having an escape in the centre, (as explained in printed directions which accompany each escape) between the supers and the hive; the escape will do the work that is most dreaded,—that of harvesting the surplus honey, with neither the taint of smoke nor the capping injured, leaving the honey in perfect condition for market. It has been thoroughly tested and is no experiment. It will clear the supers in from two to four hours time. One case of supers of 27 one-pound sections was cleared of every bee in one hour and 43 minutes.

DIRECTIONS.

Make the escape board of $\frac{3}{4}$ or $\frac{1}{2}$ in. lumber, the size of the hives or supers, and provide a suitable bee space by nailing strips $\frac{1}{4}$ or $5/16$ in. thick and 1 in. wide around the edge of both sides of the board, thus making a suitable bee space on the top and bottom of the board.

The hole for the escape should be cut in centre of the board. One escape to each board is sufficient, yet for extracting in out-apiaries more escapes in each board could be used to advantage.

When the surplus honey is ready to be taken from the hive, at any time of day when convenient, put escape board under the super with the round hole of the escape on top for the bees to enter on leaving the super. If there is brood or Queen in the super a portion of the bees will remain with her, and they must be removed.—M. E. HASTINGS, New York Mills, Oneida Co., N. Y.