

The shape of the cage has not so much to do with successful shipping as has the ventilation, and I am of the opinion that a good many queens are lost through over-ventilation. It is surprising the little air that will suffice. Another fruitful source of loss is from the sudden change of temperature when in the mails. This may, to a great extent, be overcome by wrapping the cage in a single thickness of ordinary manilla paper. The immediate requirements of every cage are, a sufficient space in which to place the queen and the attendants, and another space in which to put the food so connected with the first that the queen and her retinue may get at it as they require, and yet not become fastened in it, or daubed by it.

FOOD.

Is probably the most important item connected with the whole business of shipping queens—the "weel or woe" of more queens depends upon this than upon all other things combined. There are, perhaps, as many different kinds of foods made and recommended as there are different methods of curing bee stings, but, as in the latter case, what proves of service to one is of no account with another. We have tried many different mixtures with varying results. The "Good" candy seems to be generally recognized as having merit and our success with it has been fair. We have also obtained uniformly good results from the use of a food made after the following formula:—

Take absolutely pure granulated sugar and pulverise it. Put it in a granite dish and pour over it enough pure honey, (first having heated the honey to a little below boiling point,) to thoroughly saturate it, and stir the mass until the sugar and honey are well mixed. Then place the vessel in hot water, in which it should be allowed to stand (keeping the water about boiling point) until the sugar and honey become thoroughly incorporated. When cool it will be found quite waxy. It will not melt and run easily, and the bees take to it very kindly.

During the past season we have sent out many hundreds of virgin queens and the work of preparing the food as given above, was more than we cared to undertake for such a large number. We also desired a less costly food. We received in the spring from Mr. W. P. Henderson, of Tennessee, a half dozen young queens which reached us in a fine healthy condition, and which appeared to be fed on pure honey, and we felt that Mr. H. was practicing the plan we wanted. We ascertained from him that he used short staple raw cotton, just from the gin, after being separated from the seed, which he satur-

ated with the ripest and thickest honey that he could get, and which he then placed tightly in the trough of the cage, to keep it from leaking and bedaubing the bees. One pound of the raw cotton holds sufficient honey for a thousand cages at a cost of ten cents for the cotton. During the season we shipped nearly all our queens on food prepared in this way and we found that in the majority of instances, they reached their destination in splendid shape. I wish to particularly emphasise the idea that nothing but the purest of sugar should be used—adulterations of this article have cost us the lives of a good many queens.

MODE OF CAGING.

Complaints are sometimes heard, of queens which do not lay on introduction after arrival at their destination, even though they may have been good layers before being shipped. The treatment of queens before shipment and the mode of handling when caging, has a good deal to do with this trouble. If a queen be taken out of the hive when she is actively engaged in egg laying there is considerable danger of injury, through close confinement and through the jarring and shaking which she will receive in the transportation by mail, and we have known such queens to cease laying almost entirely after a long journey. The remedy for this is to allow them to rest a day or two before shipment. We have seen students, in catching queens, take hold of them by the abdomen or the head. This is detrimental in many cases to the egg-laying qualities of the queen, especially if any pressure is exerted. She should always be caught by the wings and held only as short a time as possible.

They should be handled very carefully and gently so that they may not become excited, and on being taken from the hive they should at once be transferred to a dark spot as near the temperature of the inside of the hive as possible. If allowed to remain in the hot sun they receive what we might call a sort of sun-stroke, and their egg laying qualities seem to be impaired. We generally ship queens by a mail which leaves Benton late in the day, and, if possible, we always like to have the queens caged, and placed in a dark room for two or three hours before they are sent off. They are thus less excited and stand the journey better.

F. H. MACPHERSON.

E. R. Root—Had with him a Benton shipping cage which he exhibited as being just the thing for shipping queens a long distance. He said that they had arranged this cage so that it might also be used for introduction. He had