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BEECOMB FOUNDATION

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4 Claims. (Cl. 6—11)

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The invention here disclosed relates to beecomb foundation.

The main objects of the invention are to protect the hives against American foulbrood and to eliminate and prevent the dissemination and spread of this disease.

Important objects of the invention are to attain these results in a practical, efficient way, fully acceptable to the apiarist.

Important objects also are to accomplish the foregoing without adding unreasonably to the cost of bee culture and without impairment to the bees or to their products.

Other desirable objects attained by the invention and the novel features of invention through which such purposes are effected, are set forth or will appear in the course of the following specification and in the claims following and broadly defining the invention.

Basically the invention comprises the manufacture of comb foundation with a germ killing drug which is effective in the larvae and pupae state and non-injurious to the bees under all conditions.

The sulfa drugs have been found most effective for the purpose.

Sulfathiazole and sodium sulfathiazole have both been used and they have been applied to and incorporated with the comb foundation in different forms and in various ways.

Sulfathiazole in powdered form has been embedded in the foundation during and as a part of the sheeting operation. It has been dusted or brushed onto the foundation after sheeting.

It may be applied in solution during or after the sheeting operation, as by dipping and the like.

The drug may be incorporated during the process of milling the beeswax or after milling.

Brushes, rollers or sprays may be employed for applying the drug to the beeswax or to the foundation.

In all events, the germ killing drug becomes a part of the foundation and continues as such during the useful life of the foundation and the comb which is built on the foundation.

This is attributed to the fact that beeswax has a bloom which apparently enables the wax to hold or contain the drug, particularly those mentioned.

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Various proportions may be employed.

Sulfathiazole sodium is soluble in alcohol at the rate of one part in fifteen parts of alcohol, and this solvent does not seem to have any effect on the sulfathiazole sodium. Thirty grains of soluble sodium sulfathiazole has been used in one pound of beeswax.

The sulfathiazole combined with and more or less contained in the beeswax is protected against deterioration and contamination and maintained effective over long periods. This sulfa cleans the infection out of the adult bees, preventing infection from ever reaching the developing brood secreted in the cells of the comb.

The fact that the beeswax has an affinity for or at least an ability to more or less absorb the sulfa drugs, enables the foundation to initiate and maintain a clean condition in the hive, free of American foulbrood.

This special foundation can be handled and used as ordinary comb foundation. Its strength is not impaired, so the invention may be employed in the extra thin, as well as the heavy forms of foundation sheeting.

The treatment of the beeswax and the foundation as described is not complicated or expensive and the total additional cost is low, particularly so in considering the saving effected by elimination of the disease.

The foundation wax, by containing the sulfa, protects, preserves and maintains the effectiveness of the drug so that the age of the foundation before use in the comb does not materially affect the ultimate efficiency of the foundation as a foulbrood eliminating agent.

To avoid confusion and insure proper use of the invention, the treated comb foundation may be marked with some positive identification, such as names, numbers, letters, figures, code marks, trade-marks or the like, or the identification may be by some special shape or coloring given the foundation. With such positive identification the bee-keeper will be able to distinguish between treated and untreated comb foundation and to observe results and handle different hives accordingly.

What is claimed is:

1. As a new article of manufacture, beecomb foundation sheeting having sodium sulfathiazole incorporated in the body of the same.

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2. As a new article of manufacture, beeswax comb foundation having sulfathiazole combined therewith.

3. As a new article of manufacture, beeswax comb foundation having sodium sulfathiazole combined therewith.

4. As a new article of manufacture, beeswax comb foundation having sulfathiazole incorporated in the body of the same.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
2,086,766	Chuck	July 13, 1937

OTHER REFERENCES

10 "Nature," March 17, 1945, page 335, copy in Patent Office Library.