D. L. MURFF & D. KYLE.

BEE-HIVES.

No. 194,165. Patented Aug. 14, 1877.

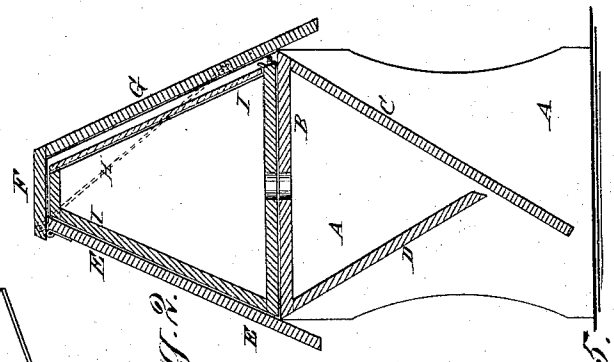

Fig. 2.



Fig. 3.



Fig. 5.

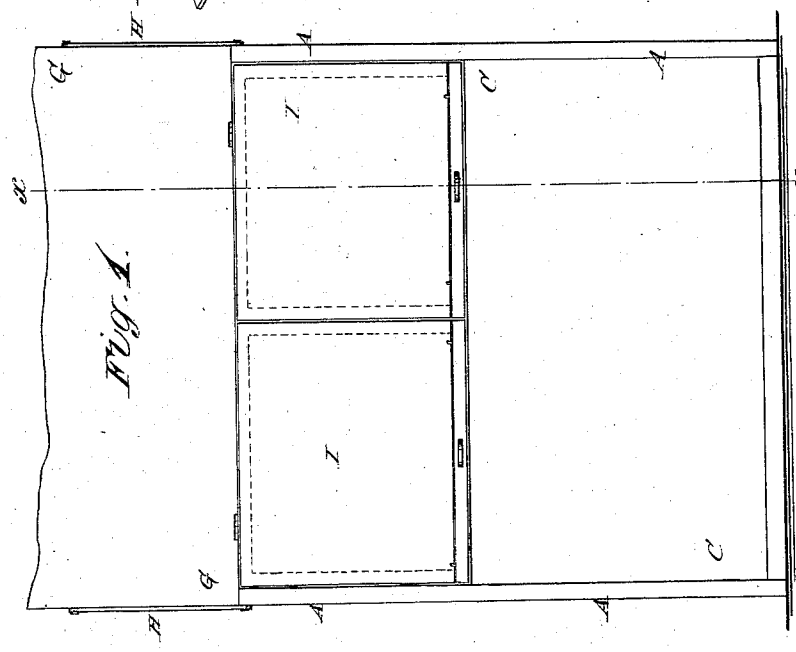

Fig. 4.

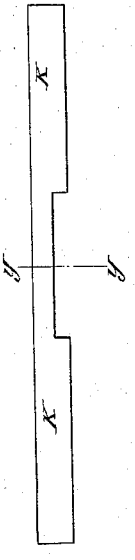

Fig. 4a.

WITNESSES:

H. Rydquist

J. N. Scarborough.

INVENTORS

D. L. Murff

D. Kyle

BY Munn & Co

ATTORNEYS.

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

DUNCAN L. MURFF AND DAVID KYLE, OF WEST STATION, MISSISSIPPI.

IMPROVEMENT IN BEE-HIVES.

Specification forming part of Letters Patent No. **194,165**, dated August 14, 1877; application filed June 30, 1877.

To all whom it may concern:

Be it known that we, DUNCAN LAFAYETTE MURFF and DAVID KYLE, of West Station, in the county of Holmes and State of Mississippi, have invented a new and useful Improvement in Bee-Hives, of which the following is a specification:

Figure 1 is a rear view of our improved hive, showing the cover raised to expose the cases. Fig. 2 is a vertical section of the same, taken through the line *x x*, Fig. 1. Fig. 3 is a perspective view of a glass plate for cutting off the bees when removing the cases. Fig. 4 is a side view of a stick for closing or partly closing the entrance. Fig. 5 is a cross-section of the same, taken through the line *y y*, Fig. 4.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish bee-hives which shall be so constructed that the surplus honey can be readily removed, that will prevent the moth from entering, and that shall be simple in construction and convenient in use.

The invention consists in the bee-hive formed by the combination of the vertical end boards, the horizontal board, the inclined rear and front boards of the brood-chamber, and the front board and the hinged cover of the honey-case chamber with each other; in the triangular honey-cases, in combination with the triangular chamber formed above the triangular brood-chamber, as hereinafter fully described.

A are the end boards of the hive, the lower ends of which are made wide, to serve as feet to support the hive. The front and rear upper corners of the end boards A are beveled off, giving the upper part of said hive the form of a truncated isosceles triangle.

To the middle parts of the end boards A are attached the ends of a horizontal board, B, which forms the top of the main or brood-chamber of the hive.

To the end boards A, and to the rear and front edges of the horizontal board B, are attached the end and top edges of the boards C D, which form the rear and front sides of the brood-chamber. The rear board C is made the wider, and the two boards C D incline toward each other, leaving a narrow space between the lower edge of the front board D and the rear board C, to serve as an entrance for the bees, and giving a cross-section of the brood-chamber the form of an equilateral triangle.

To the front edges of the upper parts of the end boards A is attached a board, E, which forms the front of the chamber for the honey-cases.

To the upper edge of the board E is hinged the forward edge of a narrow horizontal board, F, which rests upon the top edges of the end boards A, and forms the top of the hive.

To the rear edge of the top board F is attached the upper edge of the board G, which rests upon the inclined rear edges of the end boards A. The connection between the boards F and G is strengthened by the brace-wires H, attached to their end edges.

The boards F and G thus form a hinged cover for the chamber that receives the honey-cases I, and may be turned up to allow the said cases to be readily put in and taken out.

The cases I, two or more of which may be used, are made of the same form as the chamber in which they are placed, and their outer or rear sides are formed of glass plates, so that by raising the cover F G the condition of the interior of said cases can be readily inspected.

In the top board B of the brood-chamber, and in the bottom boards of the cases I, are formed corresponding holes, to enable the bees to pass back and forth readily.

The cover F G is secured in place, when closed, by hooks or other convenient fastenings.

To remove a case the cover F G is turned up, and the case to be removed is drawn forward a few inches by the knob or handle attached to the rear edge of its bottom. One hand is then placed beneath the bottom of the hive, so as to cover the hole in said bottom, and the other hand is passed over the top of the said case to its forward side, so that it may be readily raised and carried, a glass plate, J, being slipped over the hole in the board B, to prevent the bees from coming out until an empty case can be put in.

The full case I is carried into a darkened room, and the hole in its bottom is uncov-

ered. Then, by jarring the case slightly, the bees will all come out, and will fly back to the hive. The case may then be sealed up and set away for use or market.

A full case for each hive should always be kept for feeding the bees in the winter.

K is a stick so formed as to fit into the angle between the board D and the projecting part of the board C, and in the middle part of one side of which is formed a long notch, so that by turning the stick K into one position the entrance will be wholly closed, and by turning it into another position a small entrance will be left for winter use. The stick K enables the hives to be transported from place to place without the bees coming out. The triangular shape of the brood-chamber allows all the bee-droppings to slide out and drop to the ground, leaving nothing about the hive for the moth to lay her eggs upon.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. The bee-hive formed by the combination of the vertical end boards A, the horizontal board B, the inclined rear and front boards C D, the front board E, and the hinged cover F G with each other, substantially as herein shown and described.

2. The triangular honey-cases I, in combination with the triangular chamber A E F G, formed above the triangular brood-chamber, substantially as herein shown and described.

DUNCAN L. MURFF.
DAVID KYLE.

Witnesses:
ROBERT C. KELLY,
JAMES R. MOORE.