(No Model.)

G. W. STEPHENS.

BEEHIVE.

No. 491,669. Patented Feb. 14, 1893.

FIG. 1.

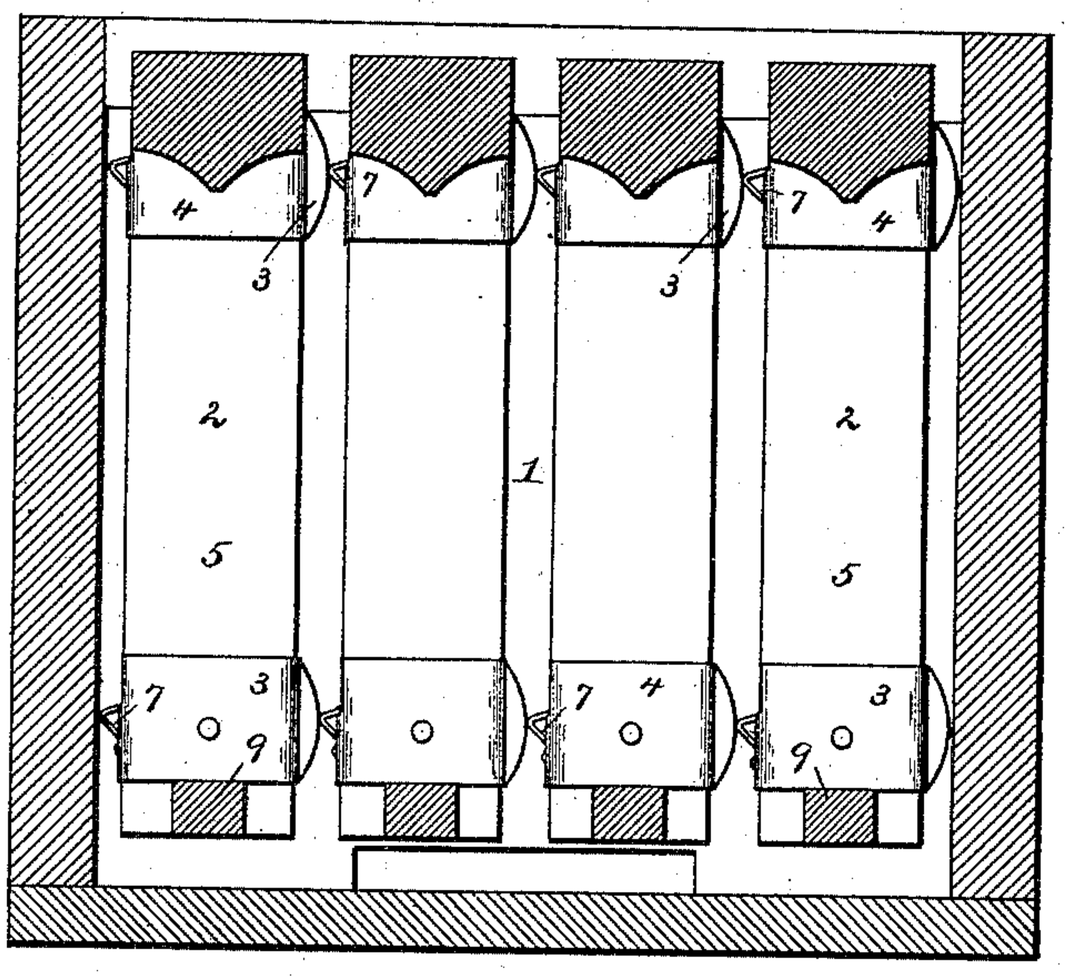


FIG. 2.

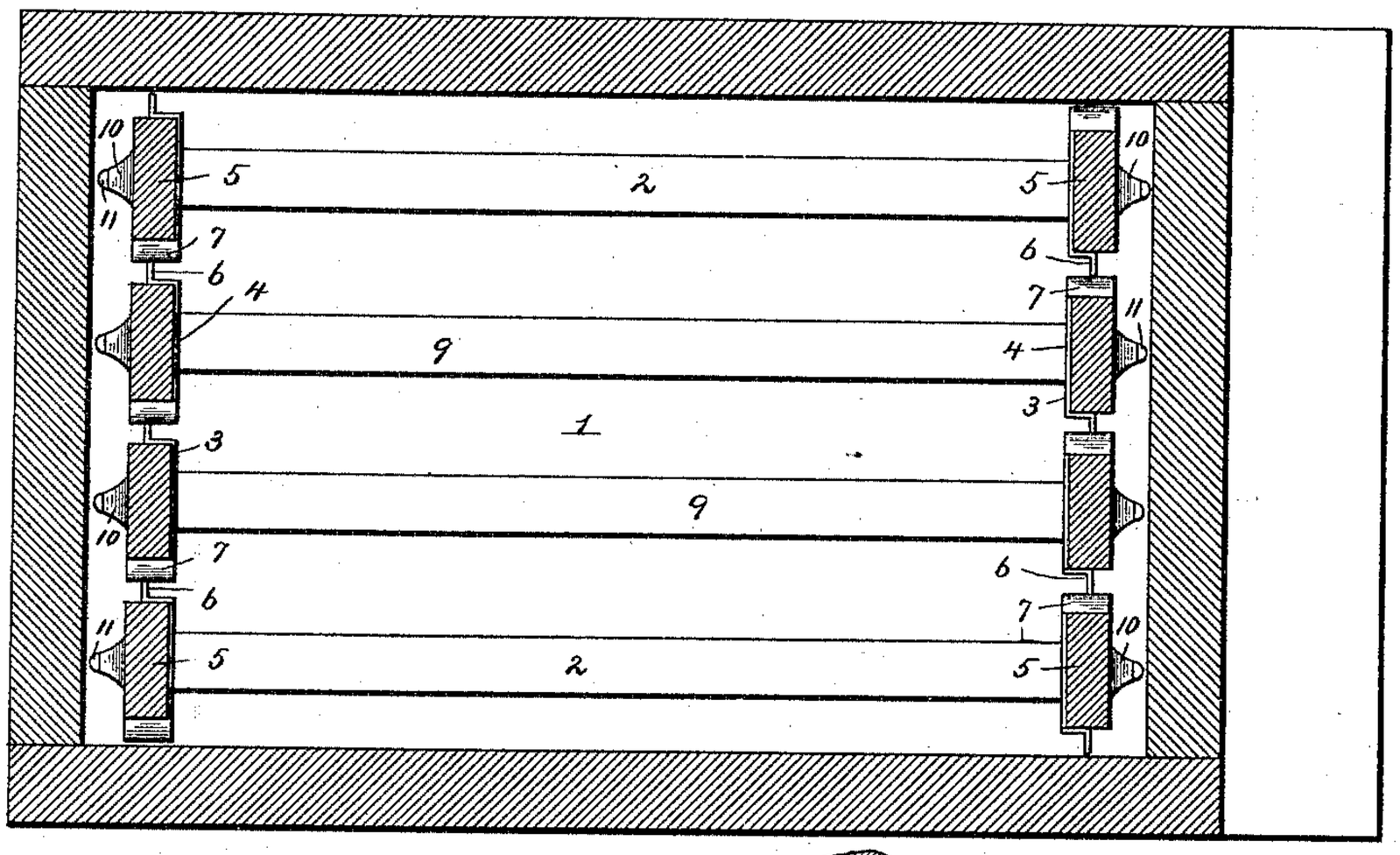


FIG. 3.

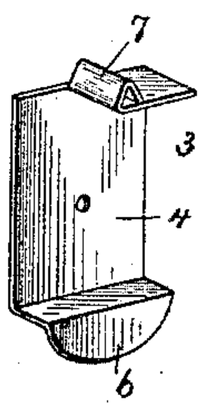
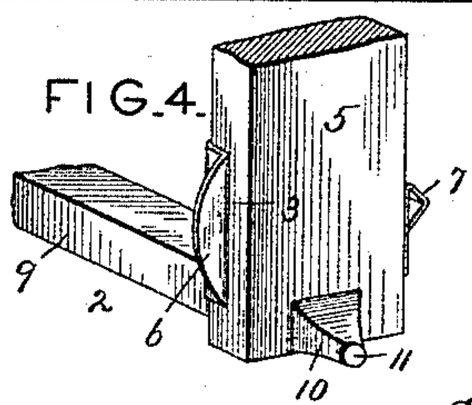


FIG. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

GEORGE WASHINGTON STEPHENS, OF DENISON, IOWA.

BEEHIVE.

SPECIFICATION forming part of Letters Patent No. 491,669, dated February 14, 1893.

Application filed June 14, 1892. Serial No. 436,723. (No model.)

To all whom it may concern:

Be it known that I, GEORGE WASHINGTON STEPHENS, a citizen of the United States, residing at Denison, in the county of Crawford and State of Iowa, have invented a new and useful Beehive, of which the following is a specification.

The invention relates to improvements in bee hives.

The object of the present invention is to improve the construction of bee hives, more especially the means for spacing the comb frames of a hive, and for preventing the same sticking together or to the sides of a hive, the main desideratum being to space the frames an equal distance apart thereby compelling bees to build straight combs, and to have the comb frames contact as little as possible with each other and with the hive body.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings and pointed out in the claims hereto appended.

In the drawings—Figure 1 is a transverse sectional view of a portion of a hive provided with my improvements. Fig. 2 is a longitudinal sectional view. Fig. 3 is a detail perspective view of one of the spacing devices. Fig. 4 is a detail perspective view of a portion of one of the comb frames.

Like numerals of reference indicate corresponding parts in all the figures of the drawings.

1 designates a portion of a hive in which are suspended comb frames 2 which are spaced near the top and bottom at opposite ends by spacing devices 3 constructed of metal and consisting of a rectangular portion 4 which receives one of the vertical bars 5 and is secured to the same, a vertically disposed segmental flange 6 arranged at one end of the rectangular portion 4, and a horizontally disposed triangular projection 7, the apex of which is adapted to bear against the curved edge of the segmental flange 6, whereby there is but little contacting surface and all interlocking of the spacing devices is prevented.

The spacing device may be constructed of sheet metal as illustrated in the accompanying drawings, or it may be cast or otherwise formed, as such changes may be made without departing from the spirit of the invention. The bearing or contact surface of the spacing devices is reduced to almost nothing, and therefore no danger of the frames sticking together as the bees have no chance of depositing any amount of propolis and wax on them and the segmental flange and the triangular projection are so disposed with relation to each other, that it will be impossible for the frames to stick. The curved edge of the segmental flange 6 greatly facilitates the placing of frames in the hive or their removal therefrom.

In order to brace and support the frames especially when being carried over rough roads, to prevent honey combs being broken, and also to prevent the vertical bars 5 from sticking to the hive body, the bottom bars 9 have their ends reduced to form pointed projections 10, which extend horizontally from the frames, and engage the side of the body. The ends of the projections are provided with metal caps 11 which lessen the friction, and which prevent the frame sticking to the body.

It will be seen that the means for spacing the frames are simple and comparatively inexpensive in construction, and are readily applied; that they greatly lessen the contact surface between the sections, and that they greatly facilitate the handling of honey sections.

When the spacing device is constructed of sheet metal, the material of the end having the projection is bent downward and outward on itself to form the triangular projection as shown.

What I claim is—

1. In a hive, a spacing device for comb frames constructed of metal and consisting of a rectangular portion to be secured to a vertical bar of a comb frame, a vertically disposed segmental flange arranged at one end of the rectangular portion, and a horizontally disposed projection arranged at the other end of the horizontal portion, substantially as described.

2. In a bee hive, a spacing device for comb frames constructed of metal and consisting of a rectangular portion to be secured to a vertical bar of a comb frame, a vertically disposed segmental flange arranged at one end of the rectangular portion, and a horizontally disposed triangular flange arranged at the

other end of the rectangular portion, and having its apex arranged beyond the rectangular portion and adapted to bear against the segmental flange of another spacing device, substantially as described.

3. In a bee hive, a spacing device for comb frames constructed of sheet metal and consisting of a rectangular portion, a vertically disposed segmental flange arranged at one end of the rectangular portion, and a horizontally disposed flange arranged at the other end of the rectangular portion and consisting of the material of the upper portion of the end piece, said material being bent upon itself to form the said projection, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

GEORGE WASHINGTON STEPHENS.

Witnesses:

HERMANN W. MAHRAUNS,

E. F. TUCKER.