

K. KIDDER & P. S. JENKINS,

Bee-Hive.

No. 227,979.

Patented May 25, 1880.

FIG. 1.

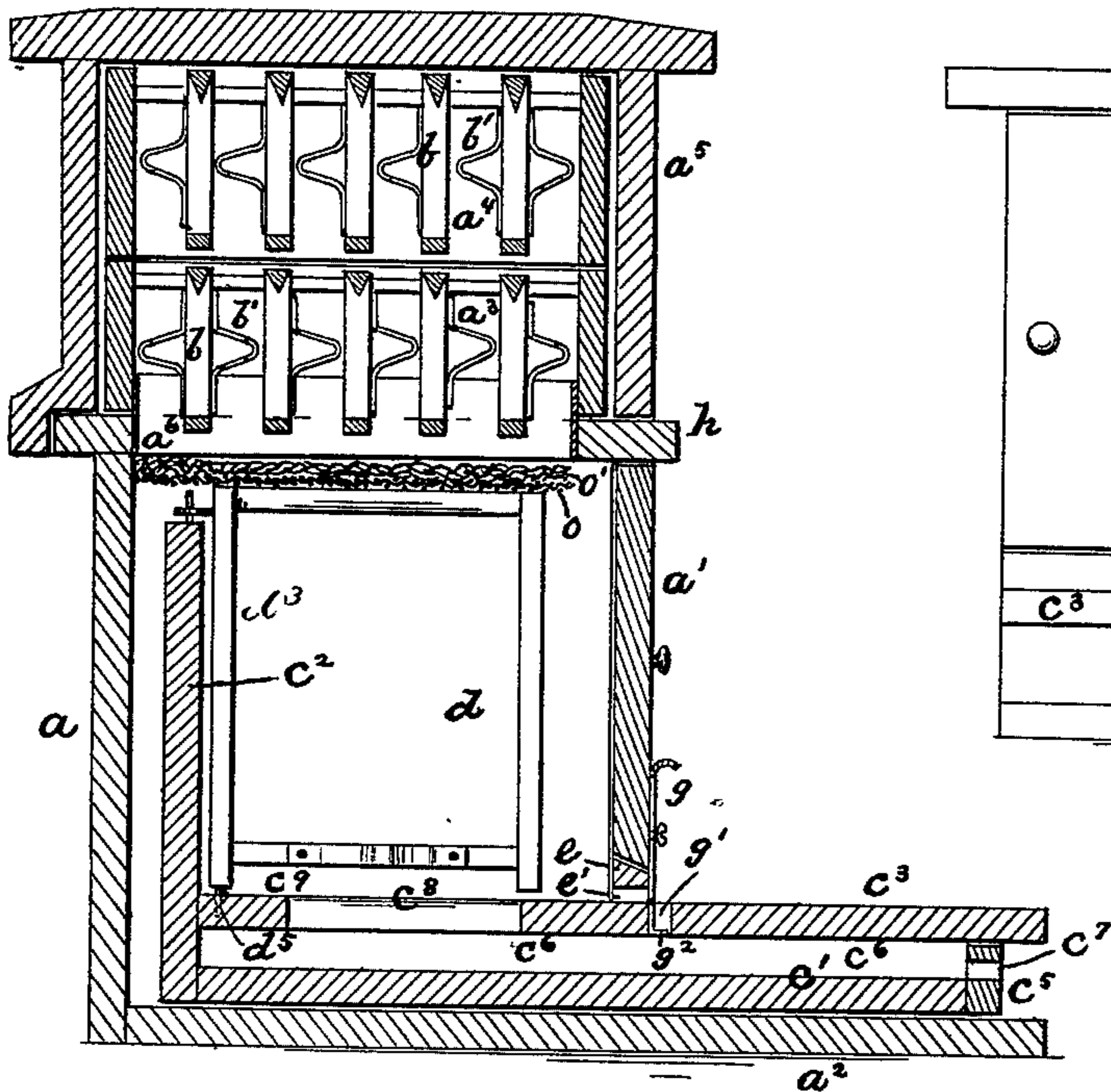


FIG. 2.

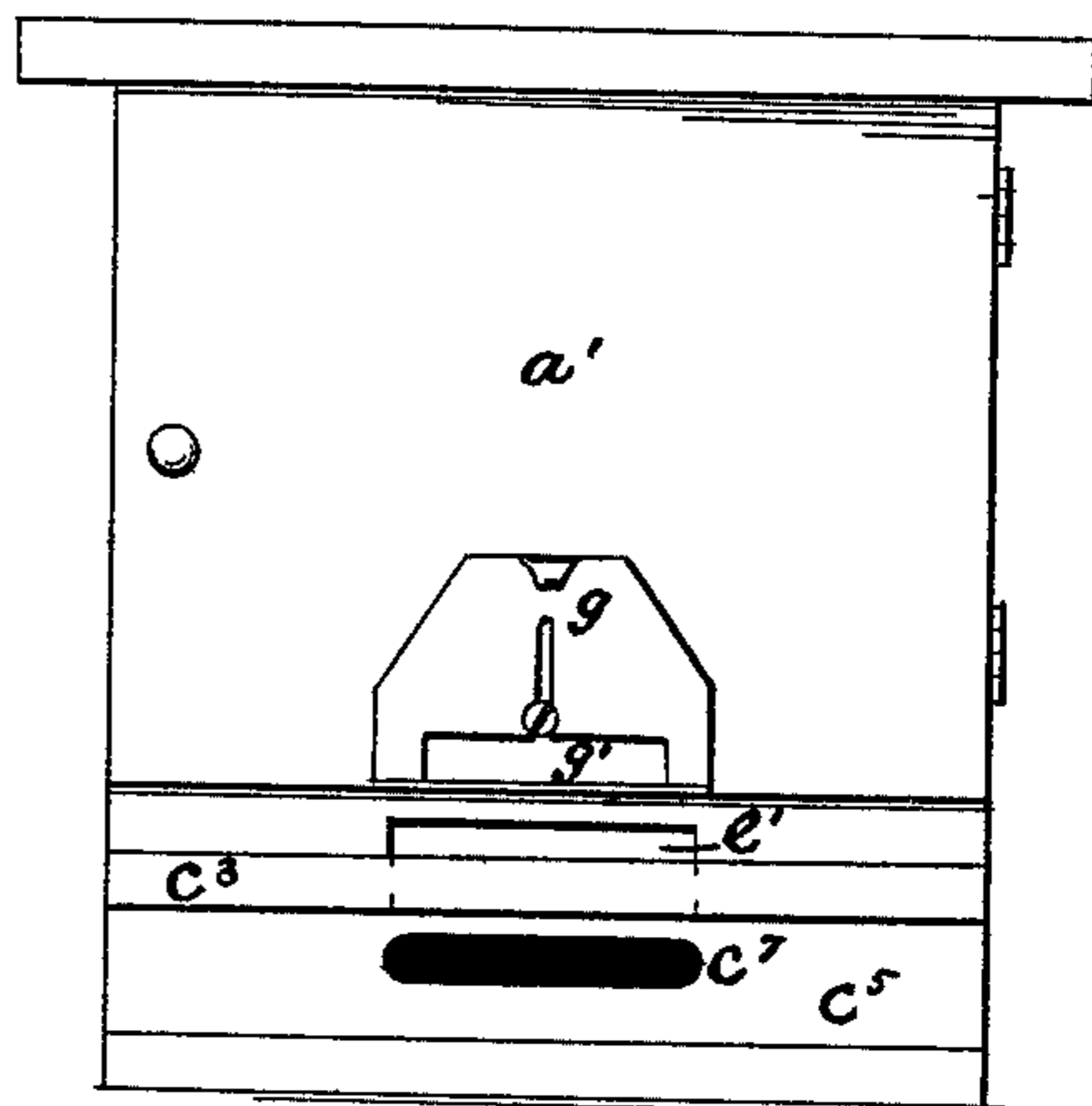


FIG. 3.

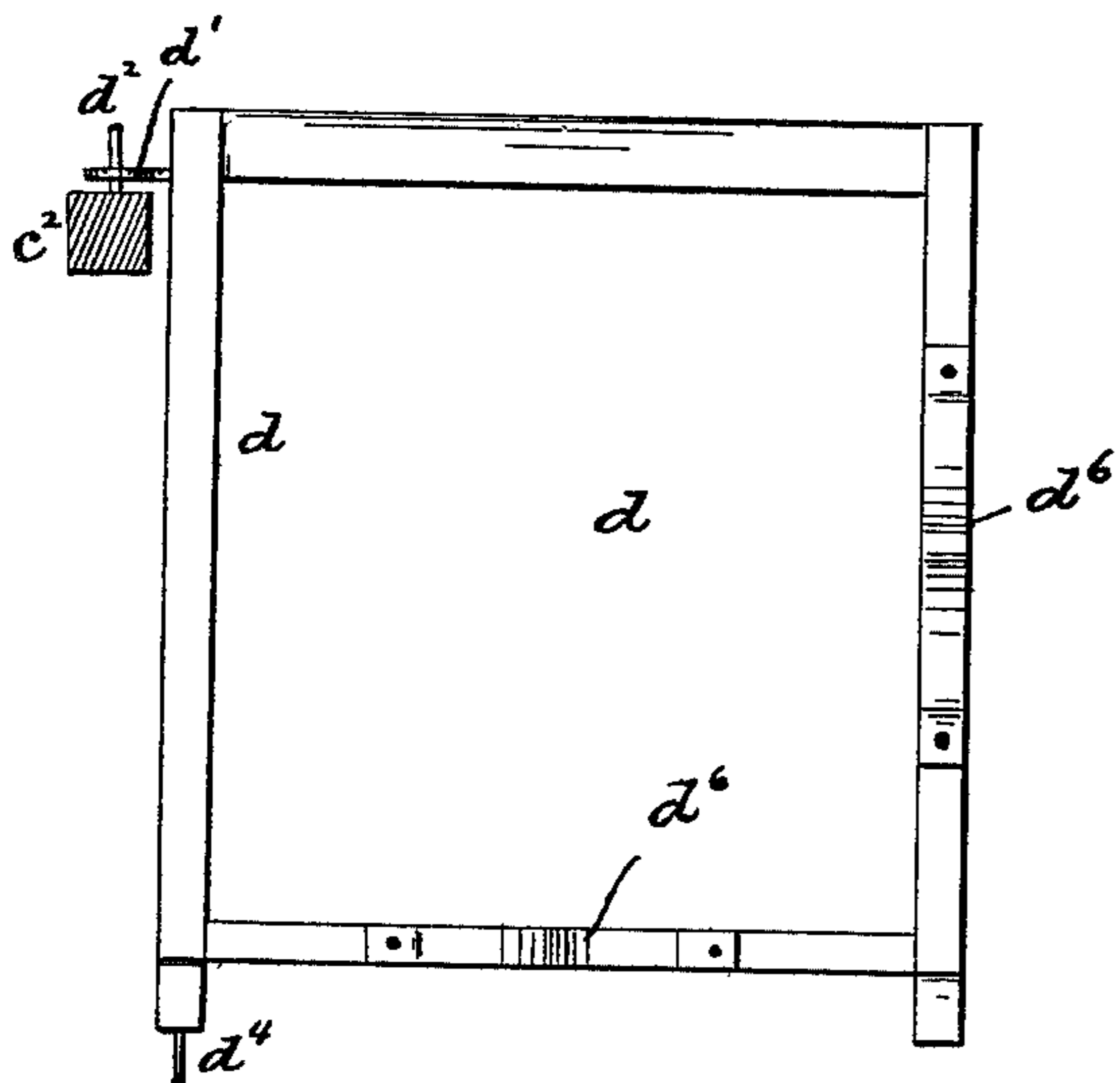
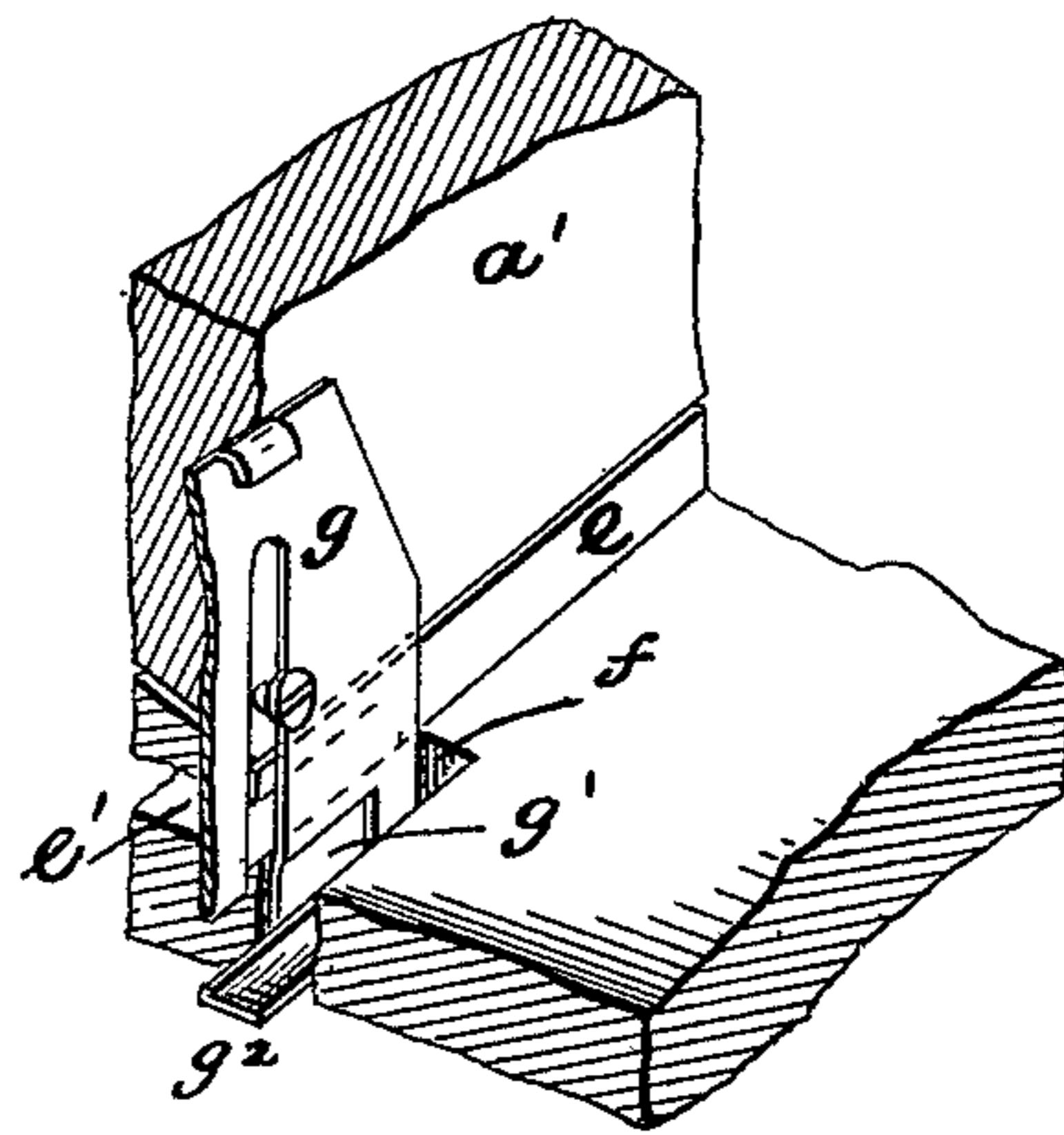


FIG. 4.



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FIG. 5.

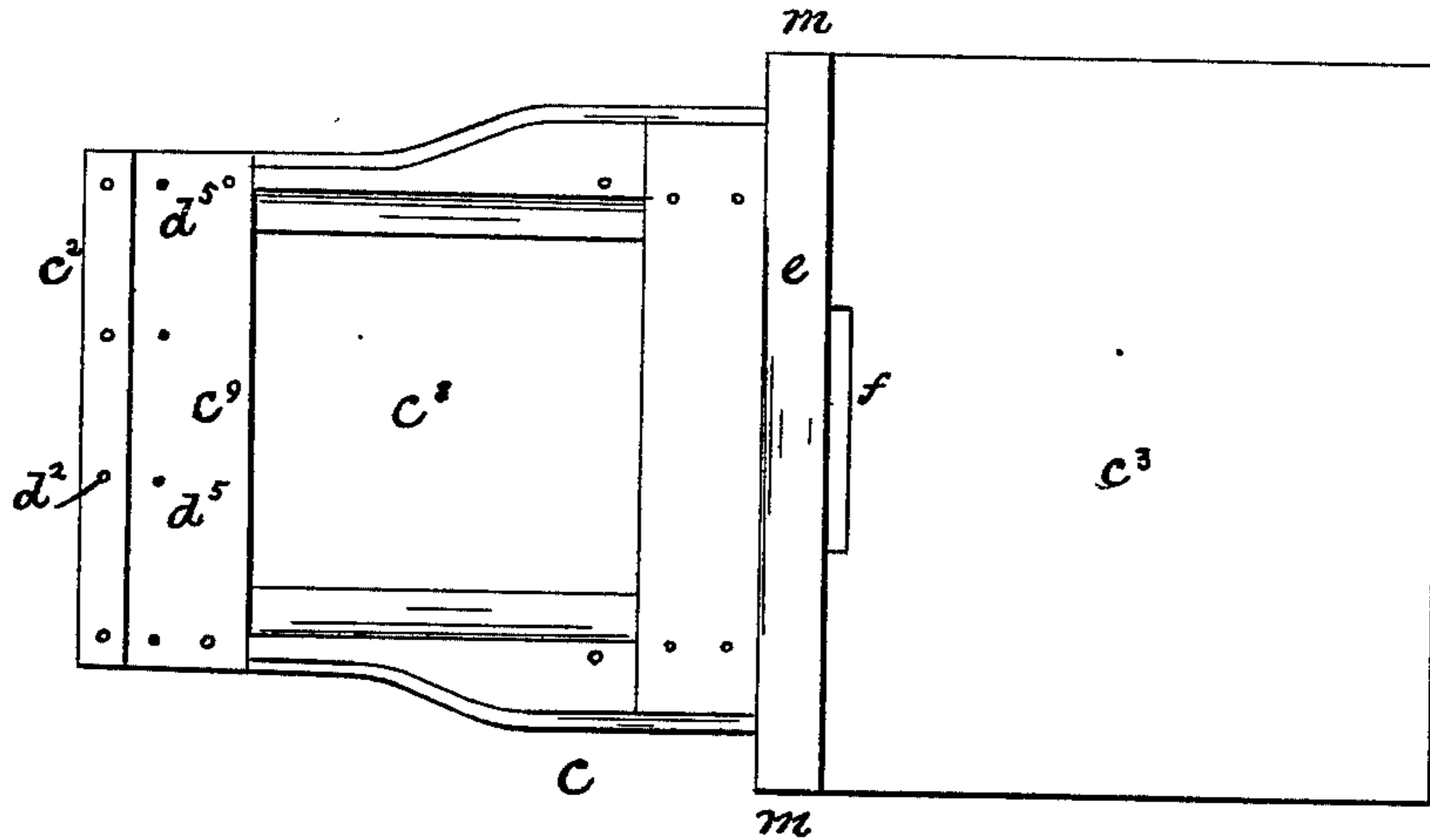
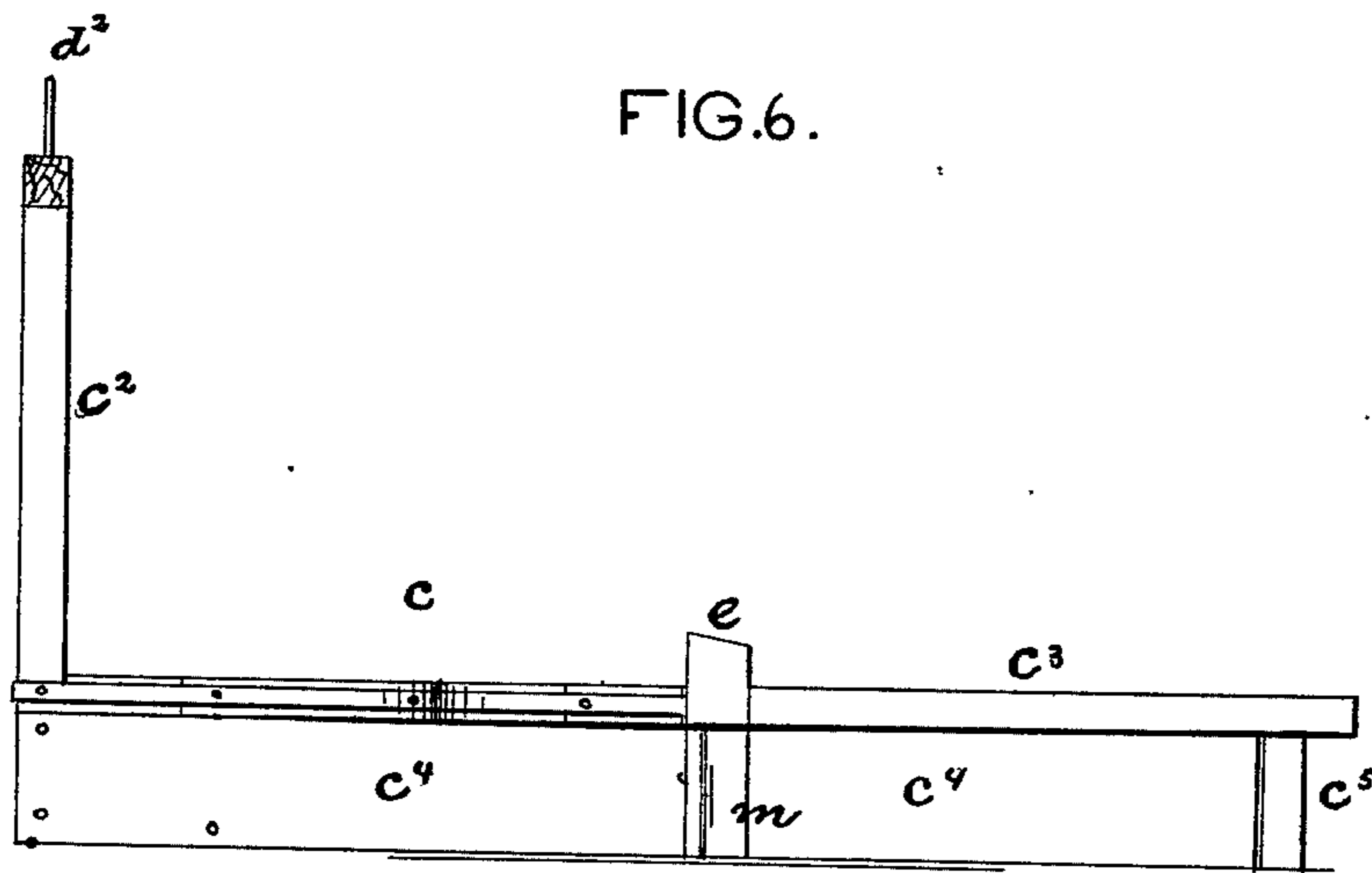


FIG. 6.



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UNITED STATES PATENT OFFICE.

KIRK KIDDER AND PERRY S. JENKINS, OF NEW LIBERTY, KENTUCKY;
SAID JENKINS ASSIGNOR TO SAID KIDDER.

BEE-HIVE.

SPECIFICATION forming part of Letters Patent No. 227,979, dated May 25, 1880.

Application filed August 22, 1879.

To all whom it may concern:

Be it known that we, KIRK KIDDER and PERRY S. JENKINS, of New Liberty, in the county of Owen and State of Kentucky, have
5 invented certain new and useful Improvements in Bee-Hives; and we do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to
10 make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention has for its object to furnish
15 a hive in which artificial swarming may be successfully accomplished and in which other desirable objects may be reached.

It consists in the peculiar construction of the alighting board with an under chamber
20 having suitable openings for the ingress and egress of the bees, all of which will be hereinafter fully explained, and specifically pointed out in the claim.

In the drawings, Figure 1 is a vertical longitudinal section of a hive constructed according to our invention. Fig. 2 is a front elevation. Fig. 3 is a comb rack. Fig. 4 is a detail, showing the operation of the slide. Fig. 5 is
25 a plan, and Fig. 6 a side elevation, of the sliding case.

a is the main box or hive, made rectangular in form, and provided on its front side with a door, a' , the lower edge of which closes against the sliding case hereinafter described. The
35 bottom board, a^2 , is extended outward on the front side, as shown, and forms a substantial rest or support for the outer extension of the sliding case. On top of the box a we place the surplus-honey boxes a^3 a^4 , which are covered by the cap a^5 , which fits snugly on top of the box a .

On the under edge of the lower surplus-honey box, a^3 , we fix a flange, a^6 , which fits snugly into the open upper end of the box a ,
45 as shown, and holds the said surplus-box firmly in place.

The comb-frames b are held about by loops b' , made of tin or other suitable material. Each loop is fixed on the side of one comb-frame, so

that it will touch and support the frame next to
50 it. These loops keep the comb frames all in perfect order, holding them firmly in place, so that the bees will not build combs across from one frame to the next, as they do when the frames hang loosely and at irregular distances
55 apart.

c is the sliding frame, on which are hung the main comb frames d . Its bottom or base board c' is made nearly the same length of the bottom board of the hive box a , so that it extends
60 outward over the extension a^2 , as shown in Fig. 1. To the inner end of the base board c' is fixed the upright support or back c^2 , which has a vertical length sufficient to hold the comb-frames d in proper position.

c^3 is the alighting board. It is placed above the base-board c' , and is held in place by side boards, c^4 , and the front board, c^5 , so as to provide an intervening chamber, c^6 , of sufficient
70 depth for the bees to readily crawl through. The front board, c^5 , has in it a slot or opening, c^7 , through which bees or drones may pass into the chamber c^6 . The slot c^7 may be closed, when desired, by a slide of ordinary form and arrangement.

The alighting-board c^3 has its inner end extended inward, and is attached to the upright support c^2 . It has cut through it the rectangular opening c^8 , over which the comb-frames
80 d hang. The opening c^8 permits the dirt, cuttings, &c., of the bees to drop into the space or chamber c^6 between the rear ends of the under and upper boards, c' and c^3 .

By this construction and arrangement the filth may be removed without disturbing the
85 bees by means of a small scraper put through the opening c^7 .

On the upper side of the alighting-board we fix a narrow bar or board, e , so arranged that the bottom of the door a' closes against
90 it, as shown in Fig. 1. Through this cross-bar is formed the entrance e' into the main hive.

f is an opening arranged close to the lower outer edge of the cross-bar e , immediately below the entrance e' , and it is cut vertically
95 downward through the alighting-board, as shown. It has the same length, or, if desired,

may be longer, than the entrance e' ; but the openings should be so arranged that the same shut off or slide may be used for both.

g is the shut-off or slide by which the entrance e' and the opening f are closed or opened. It is fixed to the door a' so that it can be moved vertically. It has a horizontal slot, g' , and its lower edge is extended downward below the slot and is turned at a right angle, so as to form the flange or lip g^2 , which slides into and closes the opening f when desired.

d is the comb frame used in the main or broad hive. It is hung by a staple or hinge, d' , on a pin, d^2 , fixed on the upper edge of the vertical back or support c^2 , while the lower end of the rear vertical bar, d^3 , is provided with a projecting pin, d^4 , which rests in a small bearing on the rear or inner end, c^3 , of the board c^3 , as shown at d^5 , Figs. 1 and 3. On the sides and bottoms of the frames d are placed loops d^6 , which have the same functions as the loops b' in the comb-frames in the surplus honey boxes. The comb frames d , when placed in position on the sliding frame c , will readily slide under the top h of the main hive a , and the whole number of frames d are so arranged that they may be readily drawn out of the box a on the frame c . The frame c has side projections, m , which are so arranged as to regulate the inward movement of the said frame c and bring the comb frames always in their proper position in the box a .

We have provided a wire screen covering, o , which we lay in the top of the comb frames d , and in winter we use a plaited woolen pad, o' , for the protection of the swarm.

The wire covering m may be employed or dispensed with as desired. When used the bees ascend to the surplus-boxes in the space surrounding its edges; or it may have a suitable hole formed in it for a passage way, while its edges fit against the sides of the box a . It gives a better ventilation than the ordinary solid board partition, and at the same time makes a substantial division between the under and the upper apartments.

Between the main hive and the upper boxes we provide a substantial removable partition,

(not shown in the drawings,) to be employed when artificial swarming is to be done.

The principal object sought to be accomplished by our invention is that of artificial swarming. This is done by means of the sliding frame C . A new box for the artificial swarming is provided and placed close by at the proper time and in manner well known to apiarists. The sliding frame, with its comb-frames and comb and bees, is withdrawn from the hive and the same is slipped into the new box. A new frame with empty comb racks is now put into the older hive in place of the one just removed.

The cut-off g enables us to close the entrance e' and the vertical passages f both at the same time, or to close one and leave the other open. In the season when the drones are driven out we draw the cut-off g up far enough to leave space sufficient for the worker, but too small for the drone to enter at the opening f . This raises the flange high enough for the drone to enter through the vertical passage f into the chamber c^6 . Once within this chamber the drone is easily disposed of by the workers.

The chamber c^6 also provides better facilities for the bees to defend themselves against moths, and it aids very much in preserving a more equal temperature and circulation of air in the hive.

A broad surface on the same plane with the opening e' is provided for the alighting of the bees.

What we claim is—

In a bee hive, the alighting-board c^3 , having the hollow chamber c^6 , and provided at its outer end with an opening, c^7 , and near its rear end with an opening, c^3 , shut off g , slots g' , and lip g^2 , all constructed and arranged to operate in the manner shown and described, and for the purposes herein set forth.

In testimony that we claim the foregoing as our own we affix our signatures in presence of two witnesses.

KIRK KIDDER.

PERRY SCOTT JENKINS.

Witnesses:

J. M. COATES,

ALBERT TOON.