

(No Model.)

M. AMS.  
KNOCKDOWN CELL FOR PACKING CASES.

No. 564,357.

Patented July 21, 1896.

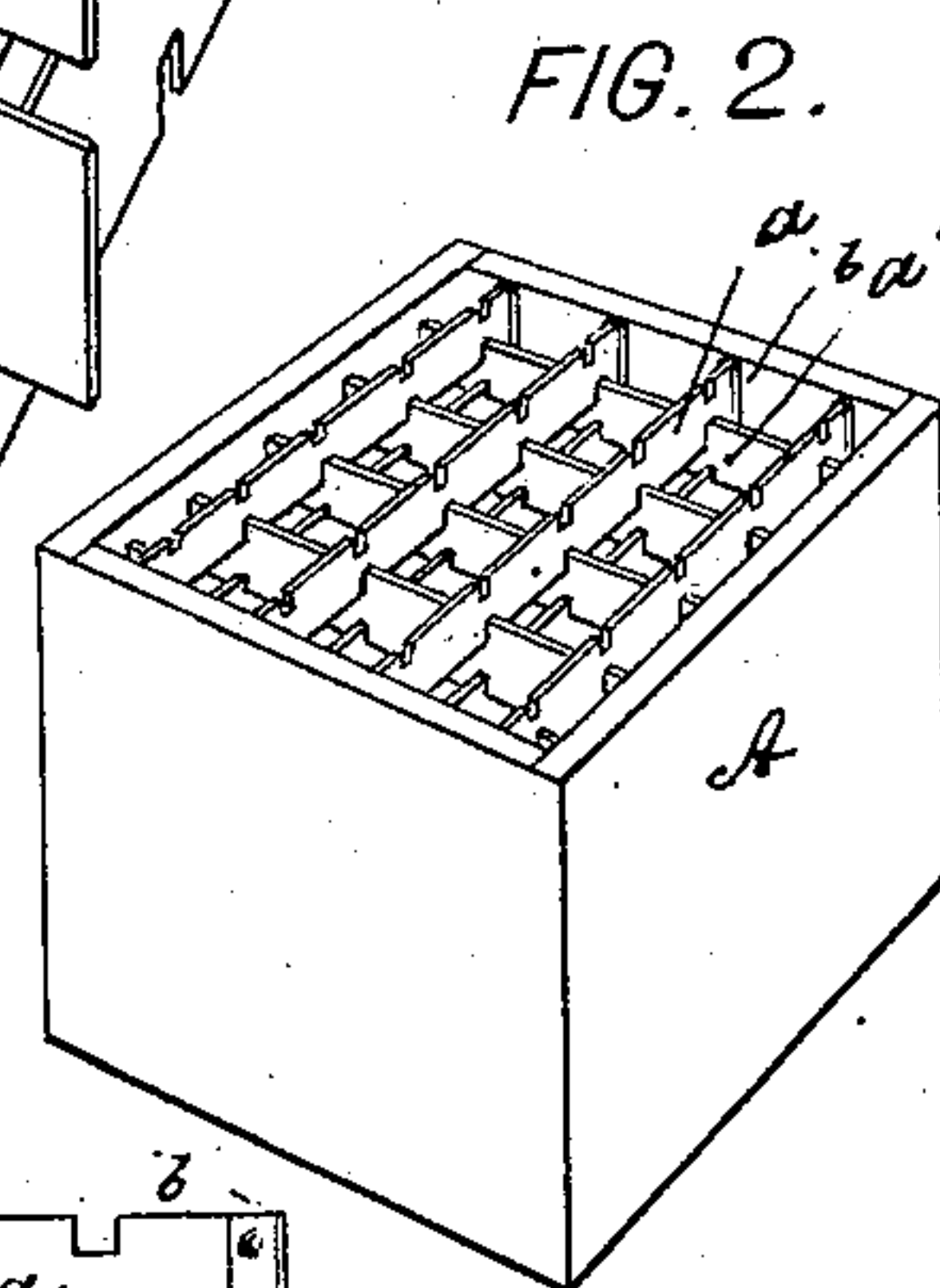
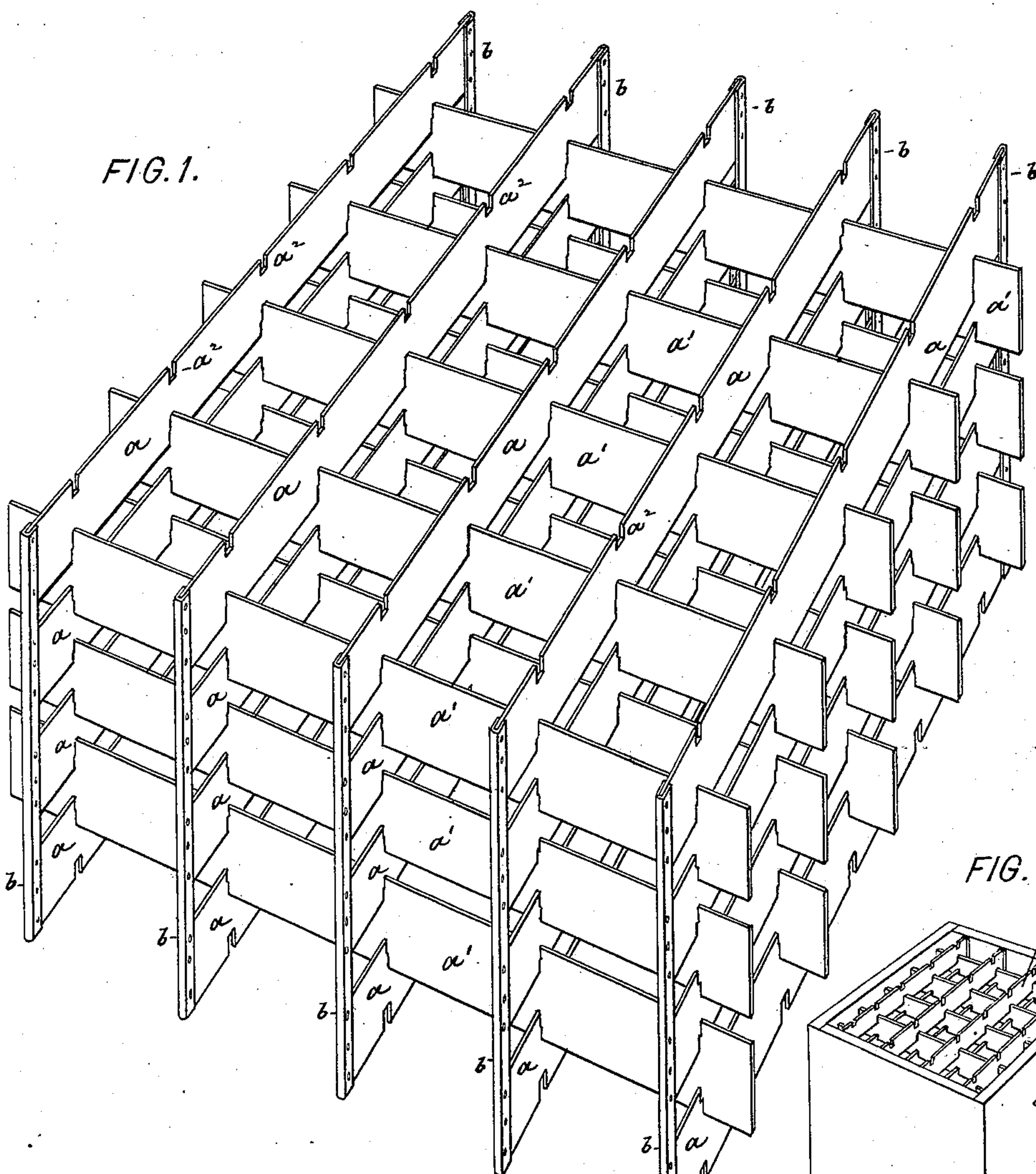


FIG. 5.

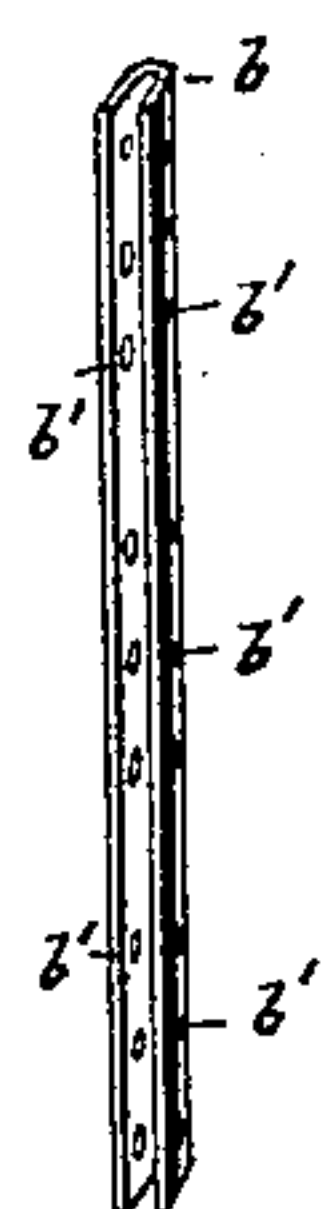


FIG. 3.

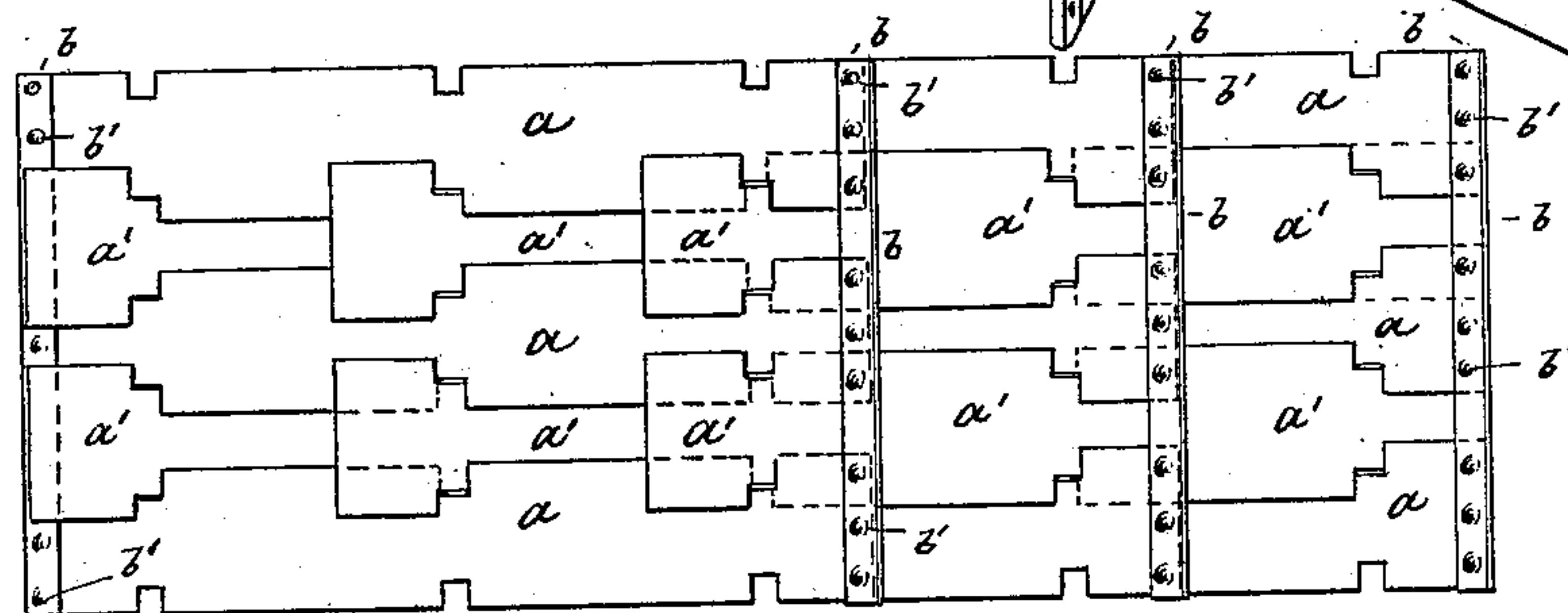
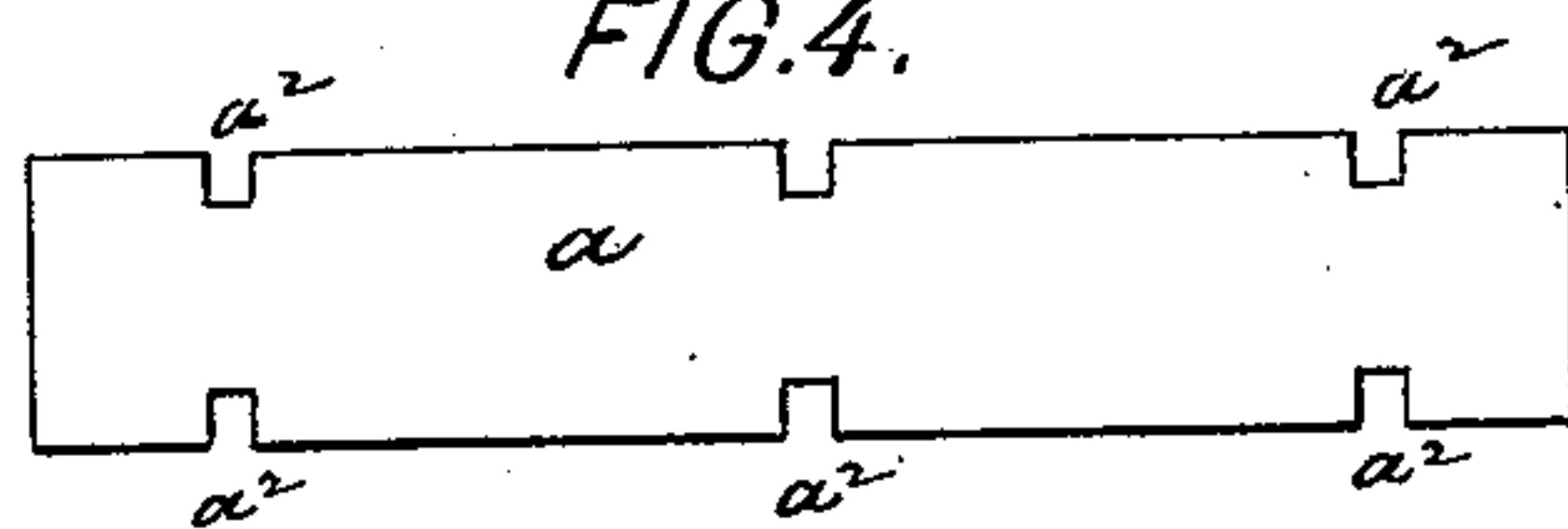


FIG. 4.



Witnesses:

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# UNITED STATES PATENT OFFICE.

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## KNOCKDOWN CELL FOR PACKING-CASES.

SPECIFICATION forming part of Letters Patent No. 564,357, dated July 21, 1896.

Application filed April 3, 1896. Serial No. 586,084. (No model.)

*To all whom it may concern:*

Be it known that I, MAX AMS, of New York city, New York, have invented an Improvement in Knockdown Cells for Packing-Boxes, of which the following is a specification.

This invention relates to a novel construction of cells for packing-boxes adapted for the reception of jars or other fragile articles. The cells are so constructed that they may be collectively knocked down during transportation, and may then be opened out and inserted into the box, so that the cost of their transportation to the packer is materially lessened.

The invention consists more particularly in connecting the ends of the longitudinal slats or veneers constituting the cells by means of upright strips that thus interlock all the slats into one inseparable but collapsible structure.

In the accompanying drawings, Figure 1 is a perspective view of the cells, showing them opened out and ready to be inserted into a box. Fig. 2 is a perspective view, on a smaller scale, of a box with the cells inserted. Fig. 3 is a plan of the cells when collapsed or knocked down. Fig. 4 is a side view of one of the slats  $a$ , and Fig. 5 a perspective view of the edging-strip  $b$ .

My improved cells are formed of two or more superposed series or batteries of longitudinal slats or veneers  $a$ , and of one or more series or batteries of intermediate transverse slats or veneers  $a'$ . The slats  $a$   $a'$  cross each other at right angles, and thus form between them the usual compartments, which are adapted to receive the jars or other articles to be packed. In order to combine the slats  $a$   $a'$  into one inseparable but collapsible structure, I connect the ends of those slats  $a$  which are in vertical alinement by means of the bent sheet-metal strips or edgings  $b$ . These strips embrace the edges of the slats  $a$ , and are clamped to the faces of the same by being provided at suitable intervals with inwardly-projecting indentations  $b'$ , which firmly engage the surface of the slats.

The longitudinal slats  $a$  are interlocked with the transverse slats  $a'$  by means of the notches  $a^2$ , formed on both sets of slats and engaging the edges of the adjoining slats. These notches should be somewhat wider than the width of the slats to permit the slats to be freely folded or knocked down.

It will be seen that inasmuch as the slats

$a'$  are interlocked with the slats  $a$  by means of the notches  $a^2$  and as the slats  $a$  which are in vertical alinement are connected to each other by means of the strips  $b$  the entire structure is so united that all the parts are positively held in their proper relative position.

When the cells are to be transported from the factory to the packer, they are knocked down, as shown in Fig. 3, so as to occupy a minimum amount of space. The packer then opens the cells out, as in Fig. 1, by a slight end pressure, and inserts them into the usual box A. Thus the packing-box is completed and ready to receive its charge.

The gist of my invention is to be found in the use of the strips  $b$  for connecting the ends of the longitudinal slats  $a$ . These strips not only serve to combine the whole structure into one inseparable body, which may be freely collapsed or opened out, but they also serve to reinforce the structure and to prevent it from losing its shape after having been opened out and inserted into the box A.

Of course any number of batteries  $a$  may be employed and connected by the strips  $b$ , the number depending upon the height of the cells desired.

By "longitudinal slats" in this specification I mean the slats of those batteries which go to form the top and bottom layers and the parallel intermediate layers (if any) of the structure.

What I claim is—

1. The combination of superposed batteries of longitudinal slats having slotted edges with intermediate slats having interlocking slotted edges, and with strips that connect the ends of the longitudinal slats that are in vertical alinement with each other, the whole forming knockdown cells for packing-boxes, substantially as specified.

2. The combination of superposed batteries of longitudinal slats having slotted edges with intermediate slats having interlocking slotted edges, and with bent and indented sheet-metal strips that embrace the edges of the longitudinal slats that are in vertical alinement with each other, substantially as specified.

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Witnesses:

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