

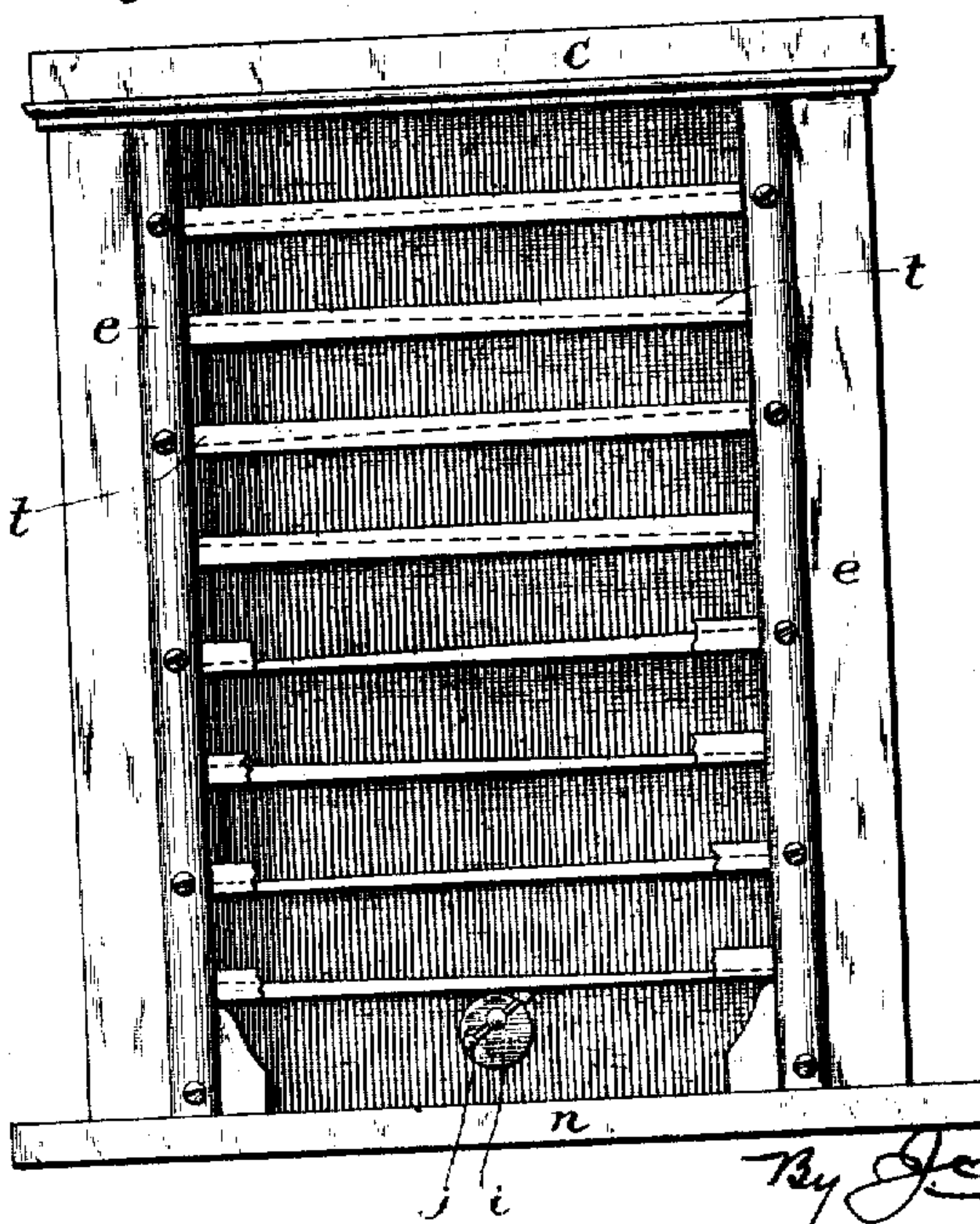
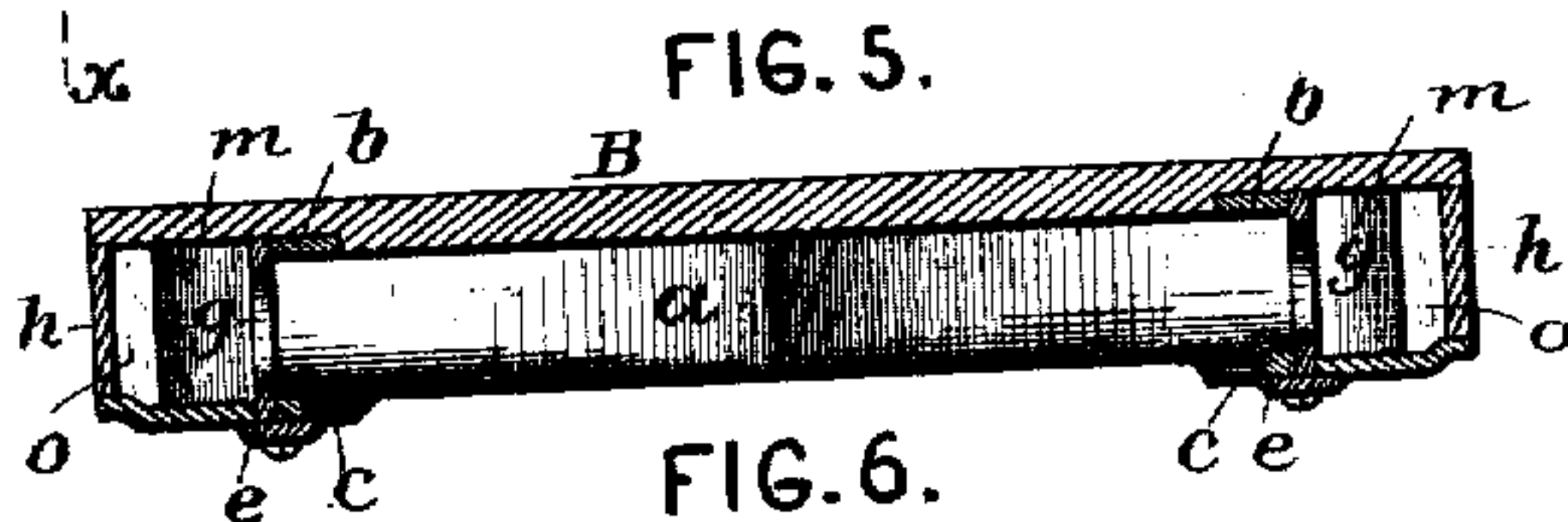
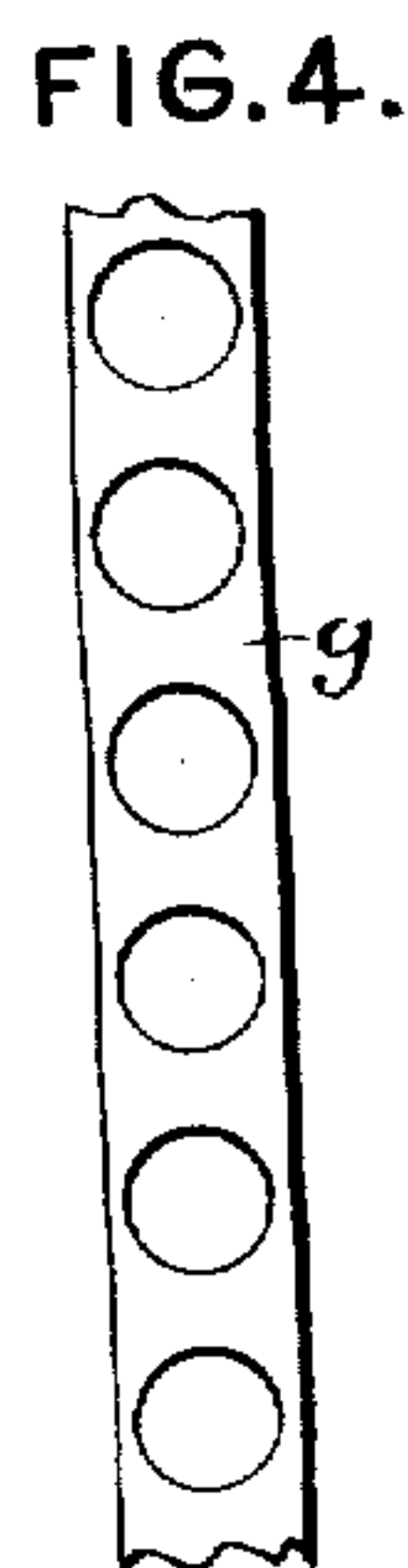
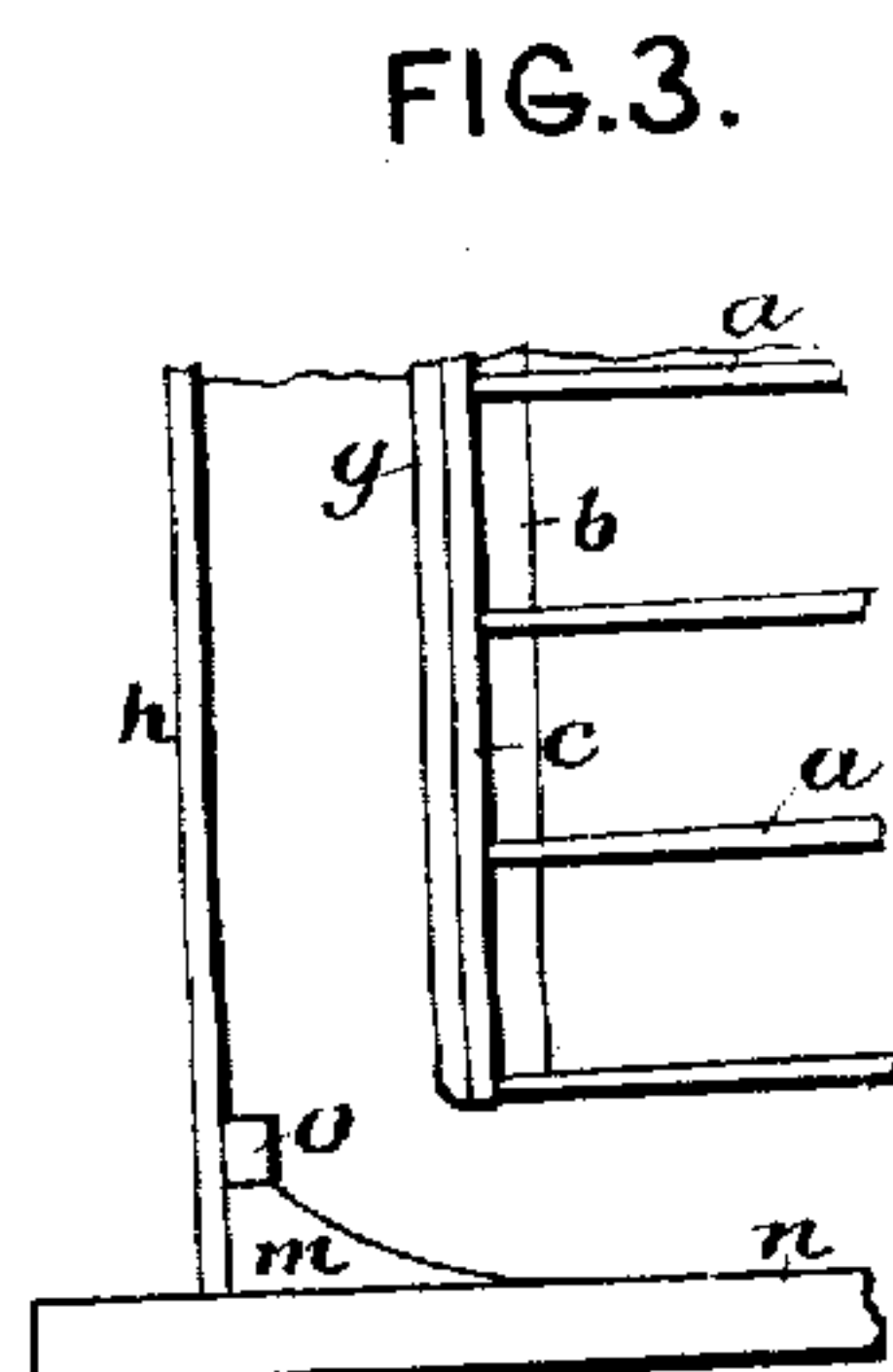
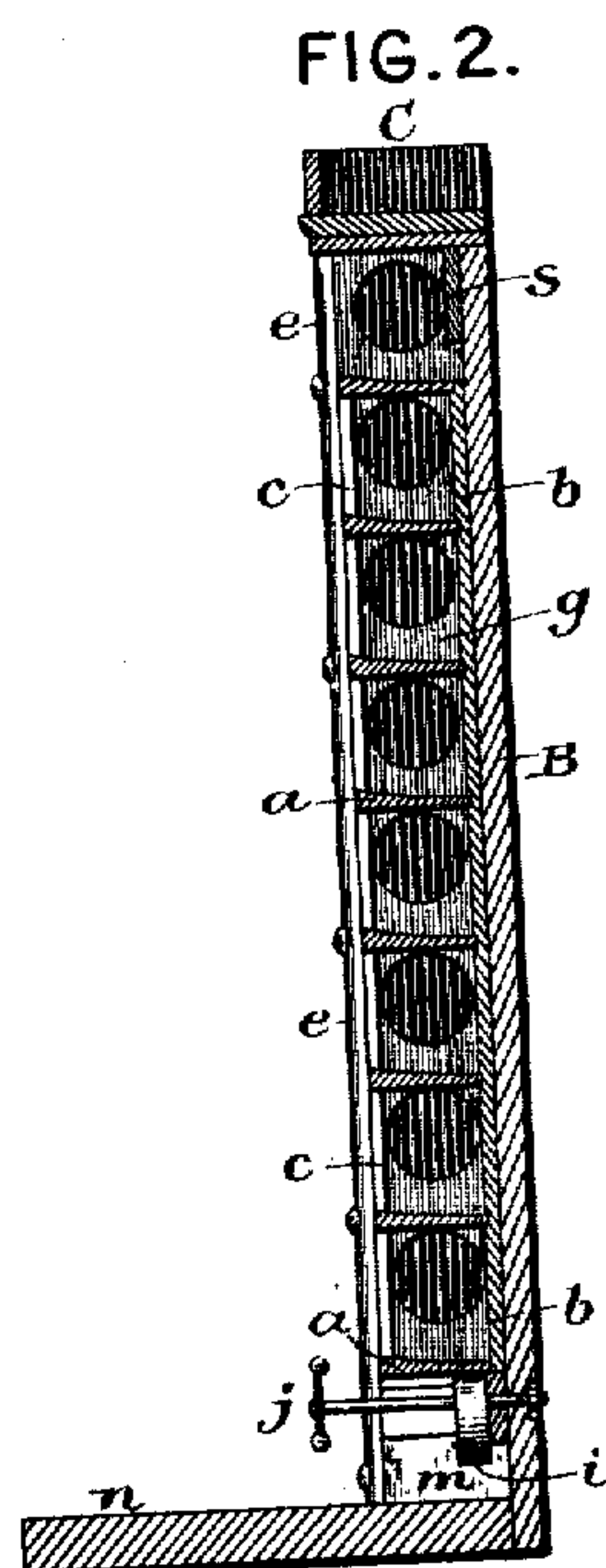
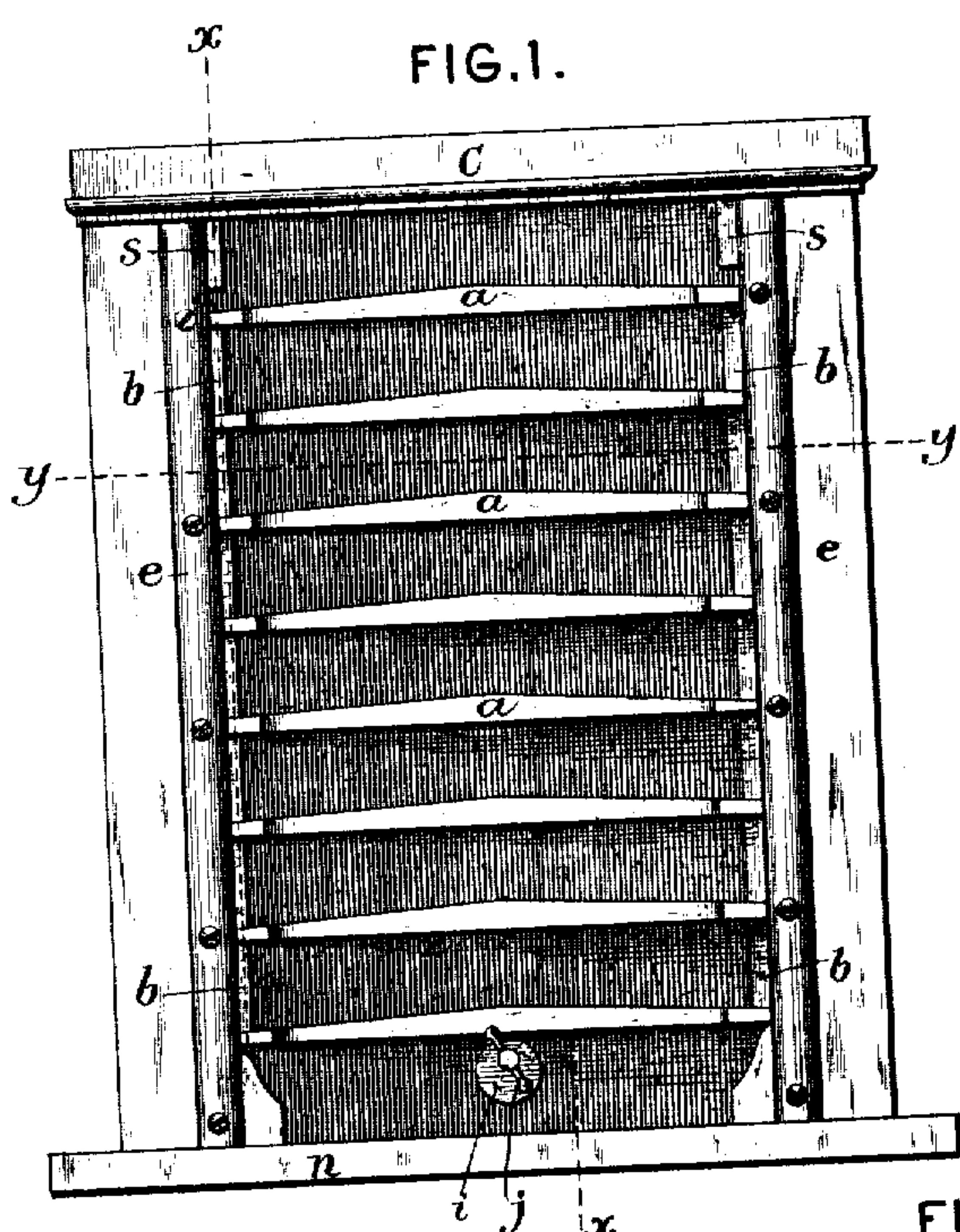
(No Model.)

H. W. COLLENDER & S. DE GAETANO.

POOL RACK.

Patented Mar. 4, 1884.

No. 294,584.



ATTEST.

J. Henry Kaiser.
Geo. T. Smallwood

INVENTORS.
Hugh W. Collender
Stephen De Gaetano

By J. M. Sutter
att'y

UNITED STATES PATENT OFFICE.

HUGH W. COLLENDER AND STEPHEN DE GAETANO, OF NEW YORK, N. Y.;
SAID DE GAETANO ASSIGNOR TO SAID COLLENDER.

POOL-RACK.

SPECIFICATION forming part of Letters Patent No. 294,584, dated March 4, 1884.

Application filed January 31, 1884. (No model.)

To all whom it may concern:

Be it known that we, HUGH W. COLLENDER and STEPHEN DE GAETANO, both of New York city, in the county of New York and State of New York, have invented an Improved Pool-Rack; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this application.

Our invention relates to certain new and useful improvements in that kind of pool-racks which are adapted to effect the automatic discharge from the shelves of all the balls contained thereon, in order that they may be collected rapidly in some suitable receptacle in which they may be carried by the game-keeper to the table for placement thereon; and it consists in the novel devices and combinations of devices hereinafter more fully described, and most particularly pointed out in the claims of this specification.

To enable those skilled in the art to which our invention relates to make and use pool-racks containing the same, we will now proceed to more fully describe the construction and operation of a contrivance embracing our improvements, referring by letters to the accompanying drawings, which form part of this specification, and in which we have shown our invention carried out in that form in which we have so far practiced it.

In the drawings, Figure 1 is a face or front view of a pool-rack made according to our invention. Fig. 2 is a vertical section thereof, taken at the line *x x* of Fig. 1. Fig. 3 is a partial front view, with portions removed in order to better show the interior construction. Fig. 4 is a detail view, showing partially one of the perforated vertical partitions. Fig. 5 is a horizontal or cross section at the line *y y* of Fig. 1, and Fig. 6 is a face or front view of a rack of modified construction.

In the several figures the same part will be found designated by the same letters of reference.

a are the shelves for the balls, and they are all secured at their front corners to two vertical strips, *c c*, and at their rear corners to strips *b b*, which hold them all securely in a

fixed relative position, and which together with said shelves constitute a skeleton set of shelves capable of movement bodily up and down within the case or body of the rack, as will be presently explained.

The case or body of the rack consists, essentially, of a back board, *B*, a base, *n*, a top, *C*, and double sides *g h*, the inner boards, *g*, forming the vertical partitions against which the ends of the shelves *a* abut, while the outer boards, *h*, form the outer edges of the rack, as shown. The partitions *g* are each perforated with a series of holes, equal in number to the number of shelves *a*, and each slightly greater in diameter than the diameter of a pool-ball, and the distances between the partitions *g* and the outer side pieces, *h*, are such that a vertical passage-way is formed at each side of the rack of sufficient capacity to serve as a conduit for the balls to descend from any of the shelves (from which they may pass into said conduit) to the bottom of the rack. The back strips of the set of shelves are fitted to slide vertically in recesses or seats in the back board *B*, (see Fig. 5,) their upward movement being limited by stops at *s*. (See Fig. 1.)

e are fillets secured to the face of the rack near each side, and projecting slightly over the front edges of the set of shelves *a*, (see Figs. 1 and 5,) so as to retain the shelves in place. Each shelf *a* has its top surface inclined downwardly from the middle toward each end, as plainly shown at Fig. 1, and also made slightly dishing or inclined from the front to the rear edge, (see Fig. 2,) and the bottom of each circular hole in each partition *g* is located more or less above the top surface of the end portion of the shelf *a* next below said shelf. The object of the doubly-inclined surface, endwise of each shelf is to conduce to distribution of the balls toward opposite ends of the same and different shelves, in order that in discharging the contents of the shelves all the balls may not be crowded into one only of the vertical conduits referred to, and the inclination backward or dishing out widthwise of each shelf is to prevent any ball from tumbling off of any shelf forwardly.

Just beneath the lower one of the shelves *a*, preferably, is placed an eccentric button or

lifter device, *i*, which is provided, for convenience of manipulation, with a handle, *j*, by means of which it may be turned. The function of this device is to lift up the set of
 5 shelves until the stops at *s s* prevent them from further upward movement, and this extent of upward movement is such as to just bring the top surfaces of the end portions of all the shelves on a level with the bottoms or lower-
 10 most parts of the circular holes in the stationary perforated partitions *g g*.

At the lower ends of the vertical conduits or passages (formed between the partitions *g g* and side pieces, *h h*, of the rack) are arranged
 15 inclined guideways *m m*, onto which any balls that may descend within said passage-way will fall, and by which they will be guided toward the middle of the floor or base board *n* of the pool-rack.

20 *o o* are rubber cushions, arranged on top of and near the uppermost portions of the guideways *m m*, as shown. These rubbers are for the descending balls to strike on, and serve not only to prevent undue abrasion of the surfaces
 25 of the ball, but also to render the contrivance more noiseless in its action.

The operation of the contrivance shown and thus far described will be easily understood to be as follows: Supposing the game-keeper to
 30 have placed (or the players to have put) all the pocketed balls upon all or on several of the shelves *a*, (some having rolled toward one end of one shelf and some toward the opposite end on another shelf) and it is desired to collect the balls for replacement on the table.
 35 The set of shelves are simply lifted or elevated (by turning the handle *j*, and thus operating the lifter,) when the ends of all the shelves being thus brought into proper relationship with
 40 all the holes in the two vertical partitions *g g*, all the balls will roll by gravity through these holes, and, falling down through the passage-ways or vertical conduits, will roll down over the guideways *m m*, and out onto the floor or
 45 base *n* of the pool-rack, from whence or at which locality they may be gathered into a suitable tray or otherwise, as usual.

At Fig. 6 we have shown, in front elevation, a modified form of pool-rack made according
 50 to our invention, in which the shelves, instead of each having its top surface inclined in opposite direction from the middle toward each end, each has its top surface inclined from one end to the other, the inclination of the shelves
 55 being alternately in opposite directions, so that every other shelf will discharge into the same conduit, and one half of them will discharge their contents into one conduit and the

other half into the other. This arrangement and construction of shelves we deem, proba- 60 bly, the best shown, for even should the marker enter all balls placed in the rack at one side of the rack, the balls must get distributed to the different conduits. In this figure we have shown the front edges of all the
 65 shelves covered or hidden by straight facings or fillets *t*, so that the structure presents a more symmetrical appearance than if the oppositely oblique shelf-surfaces or front edges were visible. 70

Of course the lifting device shown may be dispensed with, and the set of shelves lifted by taking hold of the lower part of any one of them, and other changes of the details may be made without departing from the pith of our
 75 invention, which rests in the combination of a set of shelves, that may be lifted, with side conduits perforated so that when lifted the shelves will automatically discharge their contents into the chutes. 80

What we claim as new, and desire to secure by Letters Patent, is—

1. In combination with vertical side conduits or passage-ways and suitable supporting means, a set of shelves which are free to be
 85 moved up and down, and stationary perforated partitions between said conduits and said set of shelves, all substantially as and for the purpose set forth.

2. In combination with a lifting set of
 90 shelves, and means for the discharge of their contents into ball-conduits, as explained, a device for elevating the shelves, all as set forth.

3. In combination with a movable set of
 95 shelves and side conduits, as described, a stop or stops to regulate the extent to which the shelves can be lifted to insure the coincidence of the shelves with the openings through which the balls must pass to get from the
 100 shelves into the conduits, as set forth.

4. In combination with a vertical conduit or passage-way for the fall of the balls in a pool-rack, a rubber or other cushion to break the fall and render the descent of the balls
 105 less noisy, as set forth.

Witness our hands this 30th day of January, 1884.

H. W. COLLENDER.
 STEPHEN DE GAETANO.

In presence of—

JACOB FELBEL,
 JOHN D. O'CONNOR,
 EDWARD F. BAYER,
 W. F. HENDRICKSON.