

(No Model.)

J. DANNER.

REVOLVING SHELF OR STAND.

No. 258,283.

Patented May 23, 1882.

Fig. 1.

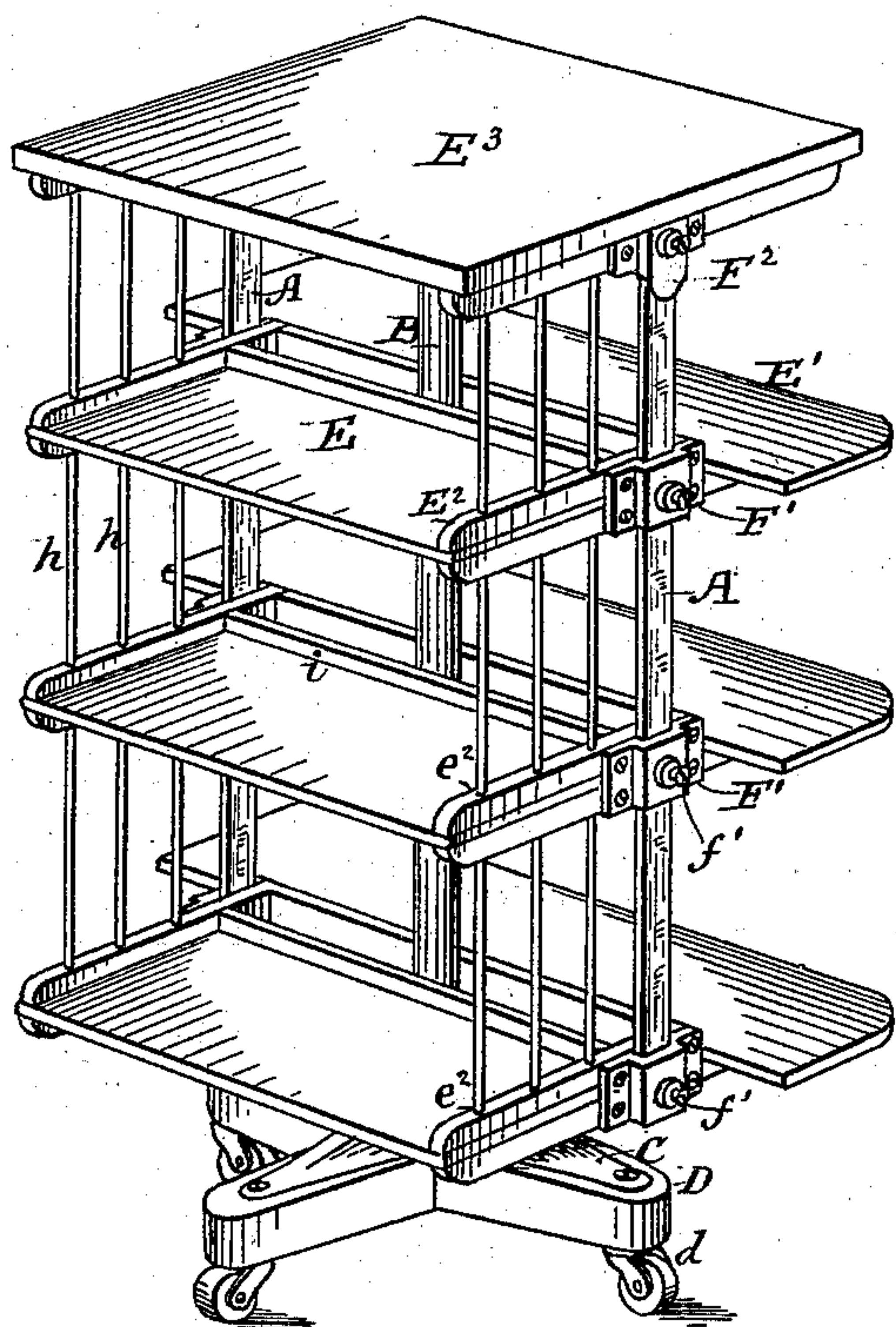


Fig. 2.

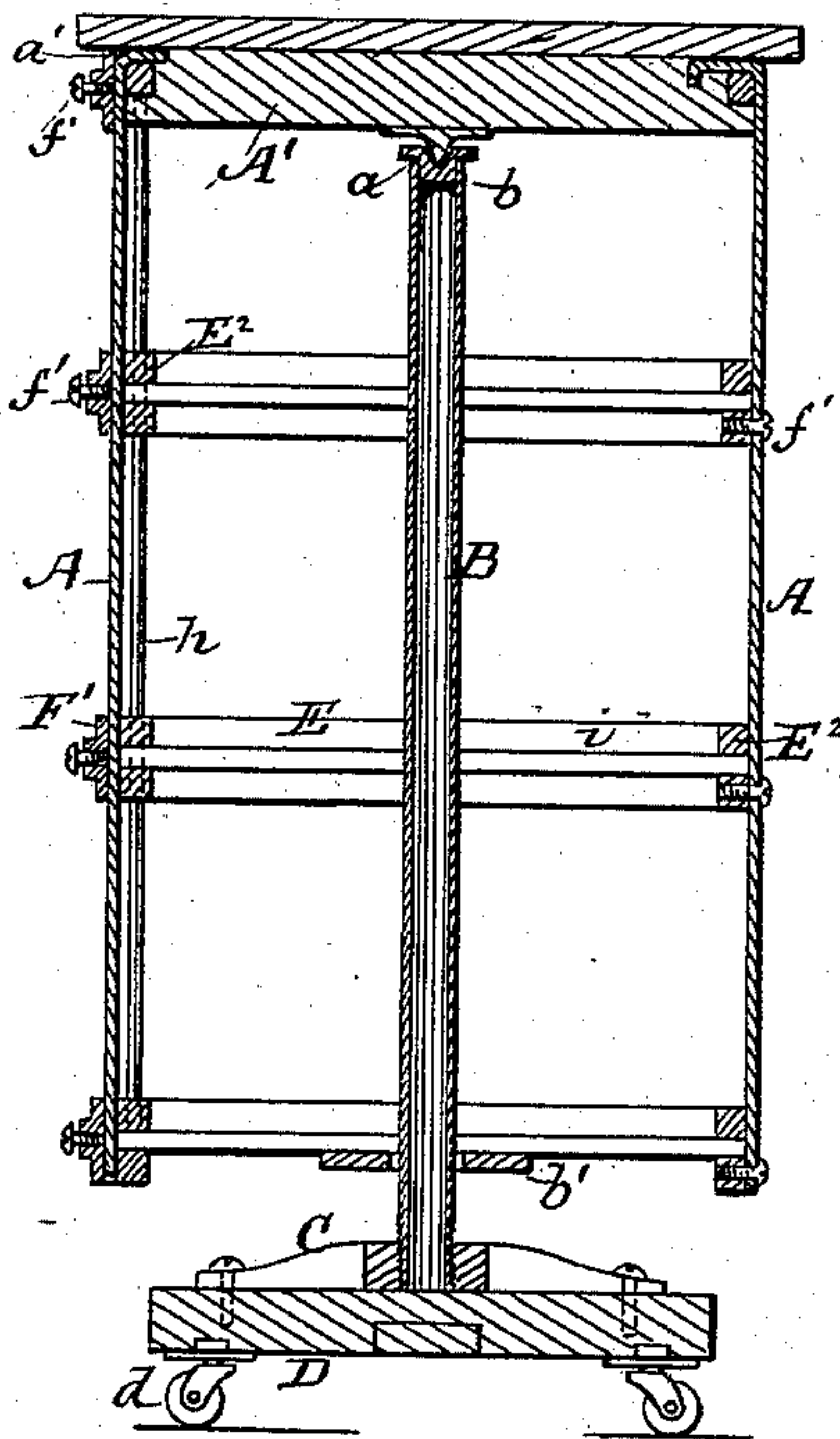


Fig. 3.

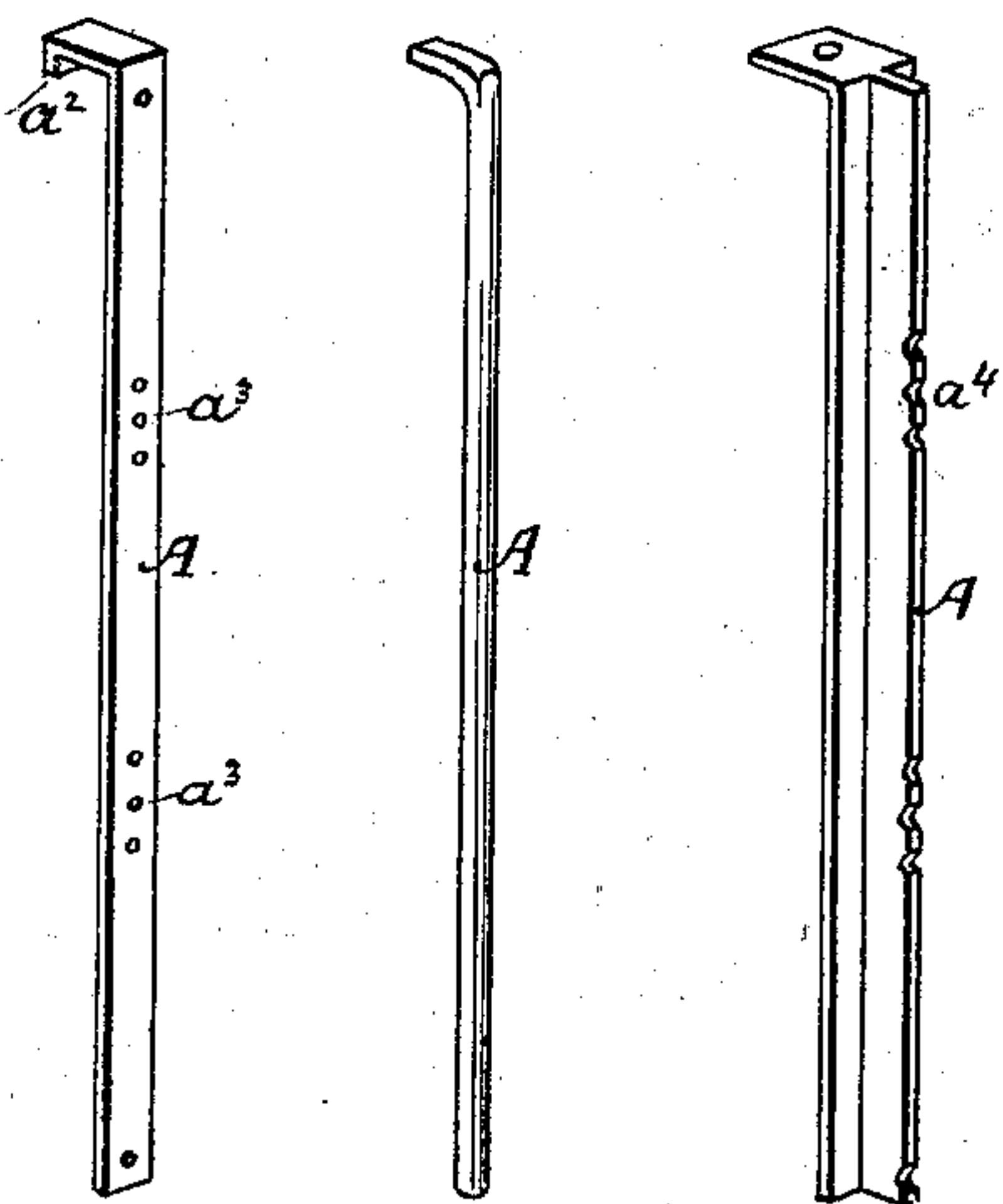
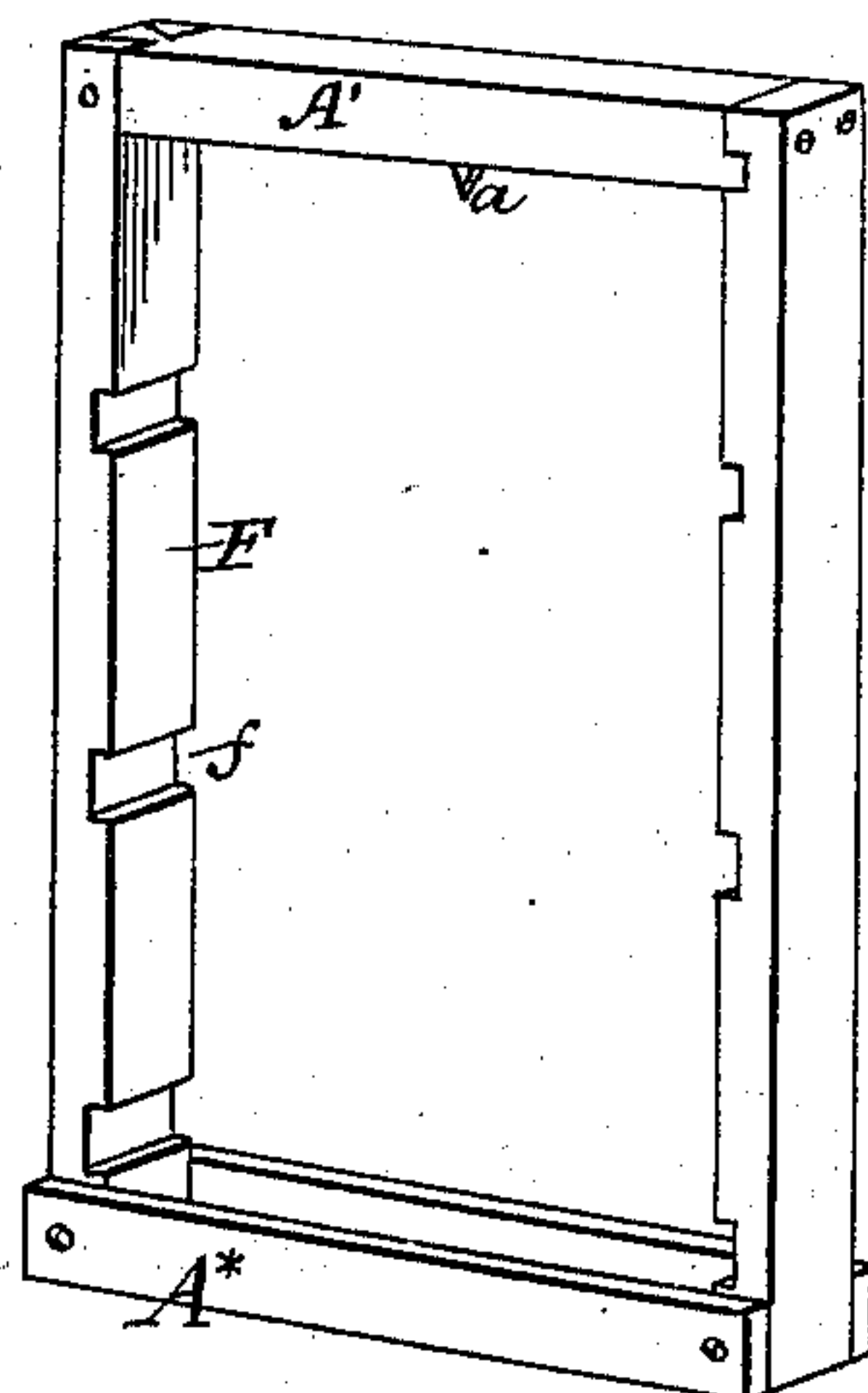


Fig. 4.



Witnesses:

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UNITED STATES PATENT OFFICE.

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REVOLVING SHELF OR STAND.

SPECIFICATION forming part of Letters Patent No. 258,283, dated May 23, 1882.

Application filed February 8, 1882. (No model.)

To all whom it may concern:

Be it known that I, JOHN DANNER, a citizen of the United States, residing at Canton, in the county of Stark and State of Ohio, have
5 invented certain new and useful Improvements in Revolving Shelves or Stands, of which the following is a specification.

This invention relates to revolving shelves used to carry dry-goods and other articles, and
10 contains many of the features described in my inventions patented May 16, 1876, December 11, 1877, and March 4, 1879; and it differs from the latter only in details of construction, by means of which the shelves and their sup-
15 ports can be more readily adjusted and united together.

The objects of my invention are to construct a stand of a series of shelves united in pairs, with supports for said shelves, so formed that
20 they can be easily disconnected and packed for transportation in about one-fourth the space occupied by the stand when ready for use, and be united again in a few minutes and without effort by persons unfamiliar with tools.
25 I attain this object by the device illustrated in the accompanying drawings, in which—

Figure 1 represents a perspective view of a series of double shelves suspended from a pair of rods secured to a yoke and adapted to re-
30 volve around a post, the shelves upon one side being intended to receive folded pieces of dry-goods, while the shelves upon the other side have vertical rods passing through their ends to keep books or other goods from falling off.

Fig. 2 represents a vertical section of the same. Fig. 3 represents modified forms of rods to be used with the yoke in securing the shelves. Fig. 4 represents still another form of bars or
40 clamps to sustain the shelves in connection with the yoke or transverse support thereof.

In said drawings, A represents metal rods, forming with the transverse piece or yoke A' the main parts of the frame that supports a series of shelves. This frame is suspended
45 upon the end of a hollow cylindrical shaft, B, by a pendent pin, a, projecting from the under side of the yoke and resting in a cup-bearing, b, secured in the upper end of said shaft. The frame is retained vertically by a col-
50 lar, v', attached to the bottom shelf or to the lower transverse bars of the same. The lower

portion of the shaft is screw-threaded, and engages with the thread cut in the central boss of the metal braces C, attached to the top of the cross-bars or base D, and to this base
55 are attached the casters d, as usual. The shelves E and E' are united in pairs or sections by bars E², secured to said shelves at each end, or adjoining each end, and preferably to the top and bottom of said shelves, to prevent them from
60 warping, and present as broad a bearing-surface as possible against the side rods, A, thus giving stability to the joints and preventing rack- ing of the shelves or stand under a heavy load of goods. Each shelf is retained connected
65 with the side rods, A, by means of independent clamps F', attached to said shelf or to the re-enforcing bars E² thereof, each clamp F' carrying a thumb-screw or set-screw, f', the end of which is in engagement with or forcibly pressed
70 against the supporting-rods A.

Although the case shown in Fig. 1 could be used, as represented, on one side for books and on the other for other goods, such construction would be very seldom required. It is so rep-
75 resented as to exhibit how its construction can be adapted to various styles; and it is intended to have the cases made with shelves and supports similar on both sides, either as at E for books or other objects requiring side supports,
80 or as at E' for calicoes, dry-goods, &c. If intended for books, the re-enforcing bars E² of the upper platform, E³, and of the bottom shelf have a series of perforations, e², extending half-
85 way through them, to receive the ends of the rods h; but the perforations made into the bars E² of the intermediate shelves to receive the rods h extend through said bars and through
said shelves for the passage of these end rods. Upon the rear side of each shelf E is placed a
90 horizontal strip, i, to keep books from being pushed too far back, and the shelves E' may be provided with similar or wider strips, i, to keep the goods away from the shaft. The up-
95 per end of the rods A is bent at right angle therewith, forming a hook, a', to rest upon the yoke and relieve the joint-covering cap F² of all strain. On the left side of Fig. 2 all the shelves are represented as secured to the side
rod, A, by the set-screws f' engaging with the
100 outer surface of the latter, and I generally prefer this mode of fastening; but the yoke A'

and its journal-pin a may be made together in one piece of metal suitably shaped, and the shelves may also be made of metal. I then prefer to form the side bars, as shown on the right-hand side of Fig. 2 and at A in Fig. 3, with a hooked upper end, a^2 , to engage with the yoke and with a series of perforations, a^3 , for the passage of the screws f' , uniting the shelves to said side bars, said shelves being in that case recessed for the passage of the side bars, so as to present the required side bearings that give stability to the shelves.

The side bars of a stand provided with wood or metal shelves may be made of square or round metal rods, as shown at A, Fig. 3; and for stands of very large size T iron bars may be used, as shown in Fig. 3, with a series of notches, a^4 , for engagement with the screws f' projecting from the clamps F' , attached to the shelves.

The side supports or clamps, F, with horizontal grooves f , (shown in Fig. 4,) were also represented in part in my Patent No. 212,903. They are united at the top to the yoke A' by means of tenon and mortise, dovetail joints, or screws, and at the bottom by means of one or two slats, A^* , or simply by means of the lower shelf of the stand; but shelves retained together by this kind of clamp soon become racked at the joints if not additionally supported, and they are not readily adjustable. The figure is added only to represent one of my first experimental stands.

The object of my invention as stated in the preamble is attained by the present construction. (See Figs. 1 and 2.) Each shelf has now

the clamps F' secured thereto at the factory, and the comparatively difficult operation of driving eight screws for each shelf into hard wood by store-keepers or buyers receiving the stand in disconnected pieces is overcome, and the turning of a set-screw on each side only is now required.

Having now fully described my invention, I claim—

1. The combination of a post having a hollow cup-bearing in its upper end, a yoke provided with a pendent pin, a , rods A, provided with a hooked end, a' , and a series of shelves provided with clamps secured thereto, and set-screws f' , adapted to operate upon or engage with the rods A, substantially as and for the purposes set forth.

2. The combination of a post, a yoke resting upon said post, vertical rods secured to said yoke, and a series of shelves provided with bars E^2 , having vertical perforations e^2 , with rods h , passing through the ends of the shelves, and clamps secured to the shelves and bars E^2 , substantially as and for the purposes described.

3. The combination of a post, a yoke adapted to rest thereon, and vertical rods secured to said yoke and provided with perforations a^3 , with a series of shelves and screws, f , adapted to pass through the perforations a^3 and engage with the shelves, substantially as and for the purposes described.

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Witnesses:

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