

E. H. BRADEN.
 WASHING MACHINE.
 APPLICATION FILED JAN. 24, 1908.

915,823.

Patented Mar. 23, 1909.
 2 SHEETS—SHEET 1.

Fig. 1.

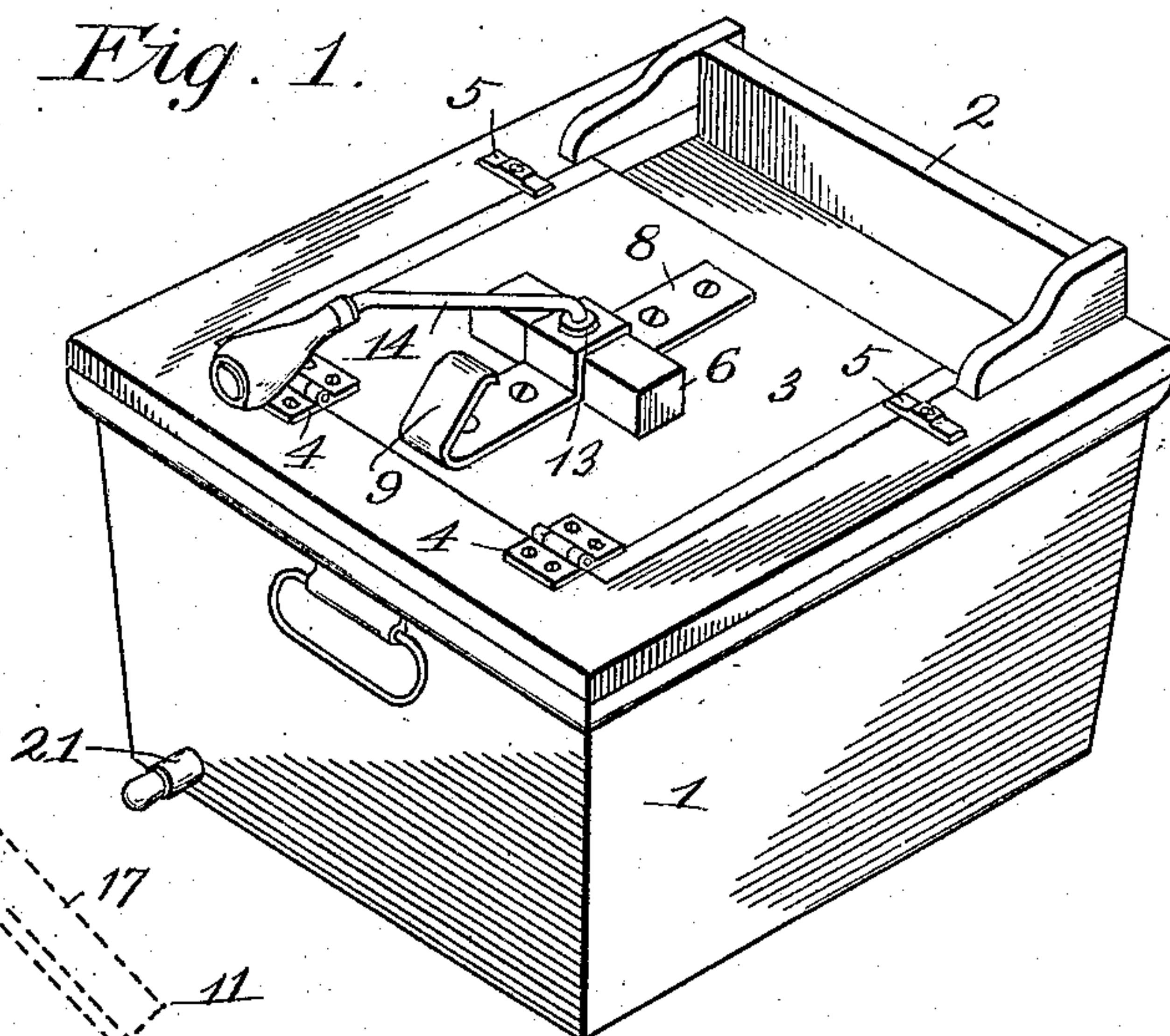
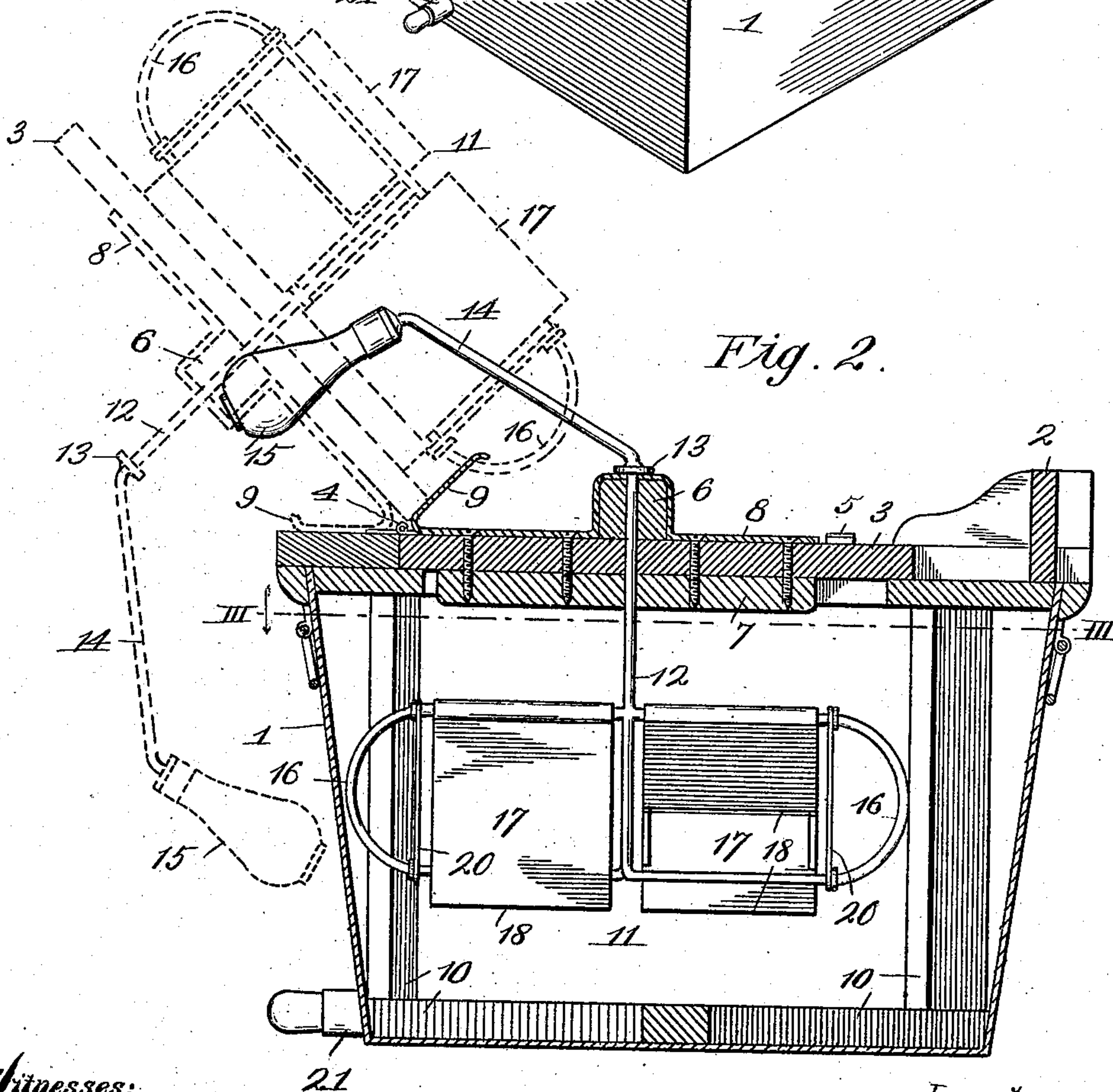


Fig. 2.



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2 SHEETS—SHEET 2.

Fig. 3.

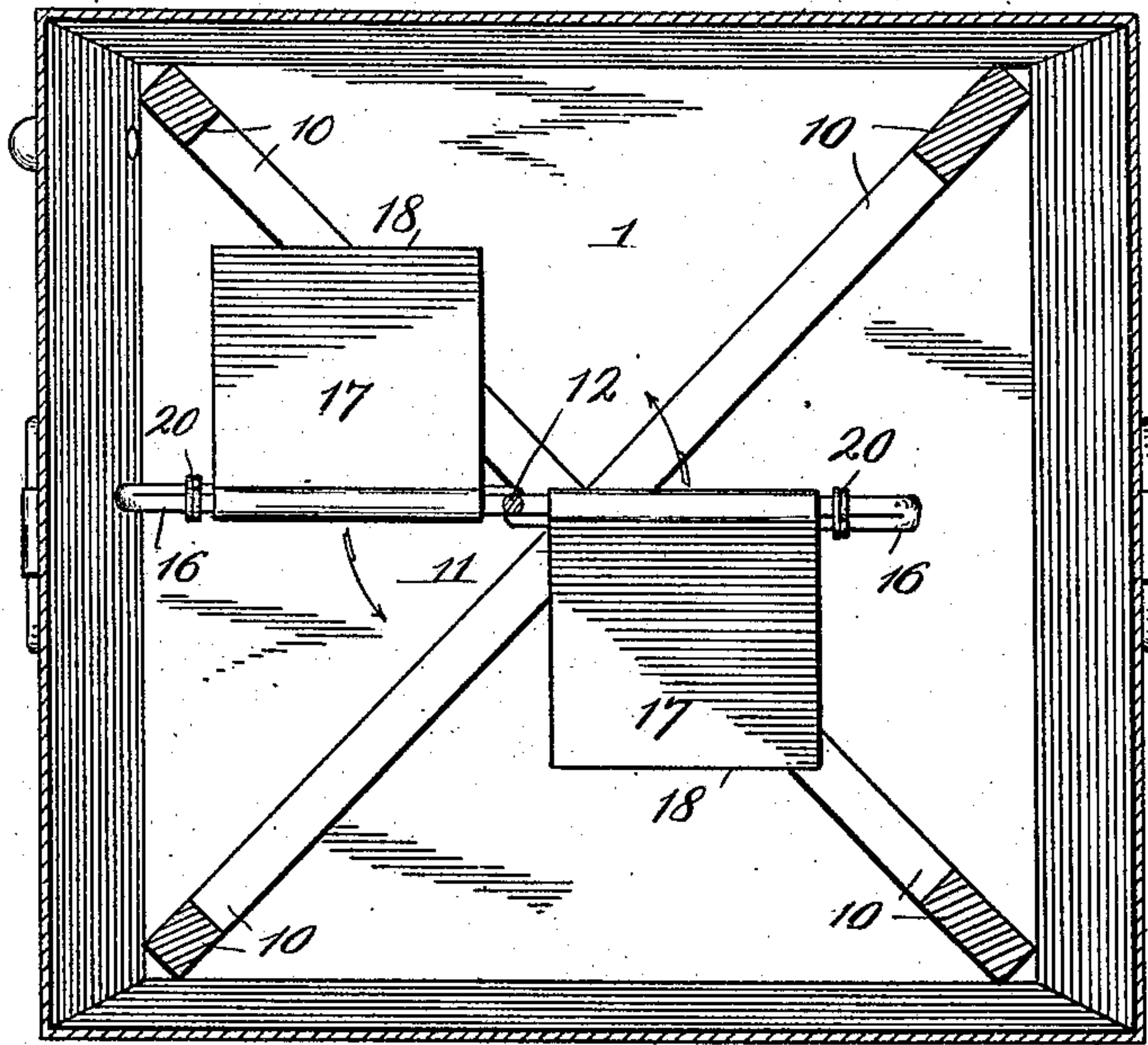


Fig. 4.

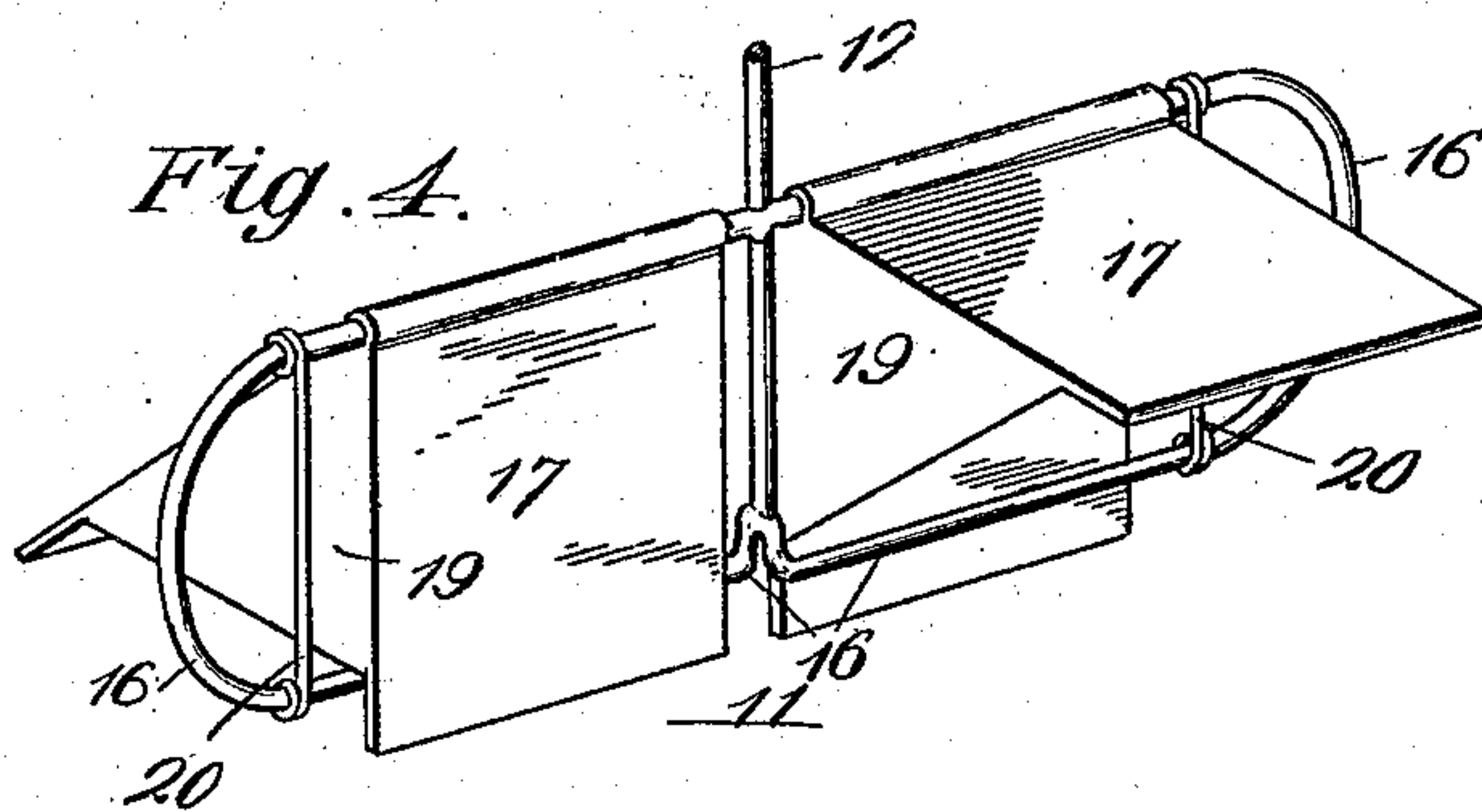
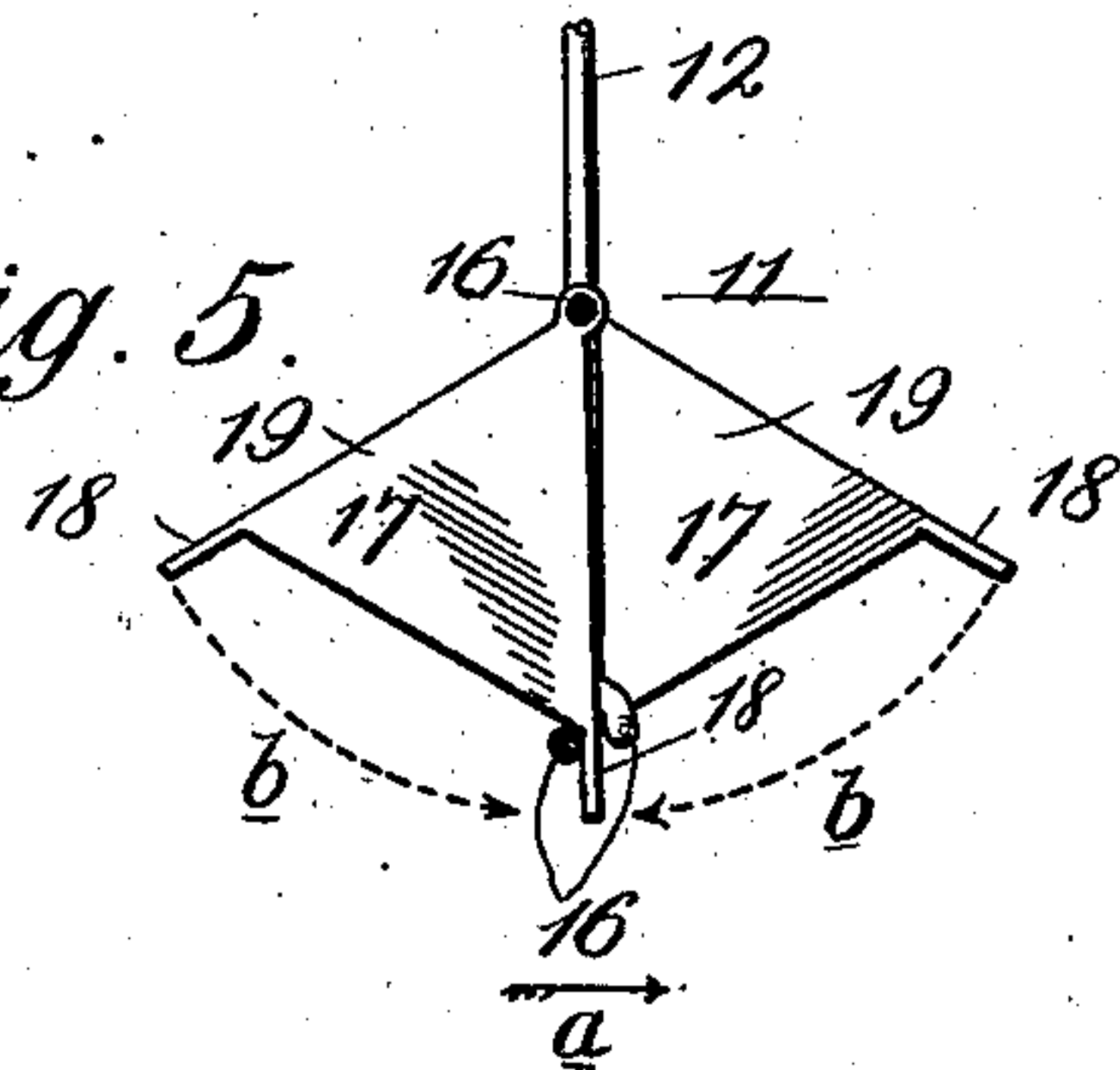


Fig. 5.



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UNITED STATES PATENT OFFICE.

EDWARD H. BRADEN, OF PLEASANTON, KANSAS.

WASHING-MACHINE.

No. 915,823.

Specification of Letters Patent.

Patented March 23, 1909.

Application filed January 24, 1908. Serial No. 412,382.

To all whom it may concern:

Be it known that I, EDWARD H. BRADEN, a citizen of the United States, residing at Pleasanton, in the county of Linn and State of Kansas, have invented certain new and useful Improvements in Washing-Machines, of which the following is a specification.

My invention relates to improvements in washing-machines; and one of my objects is to provide a simple and comparatively inexpensive machine, whereby clothes and other fabrics may be quickly washed without injury thereto.

A further object is to provide a washing-machine having oscillatory cups adapted to agitate the clothes and force water there-through, so that the dirt will be thoroughly removed therefrom.

Other objects of the invention will hereinafter appear, and in order that it may be fully understood, reference will now be made to the accompanying drawings, in which:

Figure 1 represents a perspective view of my washing-machine. Fig. 2 is a vertical central section of the same with the lid and agitator thrown back to an inoperative position in dotted lines. Fig. 3 is a horizontal section of the machine on line III—III of Fig. 2. Figs. 4 and 5 are detail views of the agitator, forming the important feature of the invention.

In practice I employ a receptacle 1 of any desired form which is provided at its upper portion with a wringer-stand 2 and a lid 3, which latter is secured to the receptacle by hinges 4 and locked in a closed position by a pair of turn-buttons 5 pivotally secured to the receptacle. Lid 3 is provided with a bearing consisting of a block 6 secured to its upper portion and a block 7 secured to its under portion, said blocks being arranged crosswise to each other to reinforce the lid. The lid is further reinforced by a metal strap 8, the rear end 9 of which extends upward at an angle approximating forty-five degrees, to act as a stop and a rest for the lid when the latter is thrown open as shown by dotted lines, Fig. 2. The interior of the receptacle is provided at its bottom and corner portions with ribs 10 which assist in rubbing the dirt from the clothes when the latter are drawn into contact therewith.

11 designates the agitator which is carried by a vertical shaft 12, journaled in blocks 6 and 7, and also slidably mounted therein so

that the agitator may accommodate itself to the number of clothes in the receptacle. When the shaft occupies its lowermost position it is supported from the upper surface of strap 8 by a collar 13. That portion of the shaft above the collar is bent to form a crank 14, the outer end of which is bent downward and provided with a handle 15 whereby the shaft and the agitator are turned. That portion of the crank carrying the handle is bent downward so that it will occupy but little space when the machine is shipped.

The agitator consists of a skeleton frame 16 and a pair of cups 17, which latter are rockingly-mounted in the former. The cups are of triangular form in cross-section and their side portions 18 extend below their end portions 19 to limit their rocking movement by contacting with the lower portion of frame 16. Frame 16 is provided near its ends with vertical rods 20 for a purpose hereinafter described.

21 designates a spout leading from the lower portion of the receptacle for draining the water therefrom.

In practice the clothes may be either cleaned by agitation or by forcing the water therethrough. When the former method is employed the clothes are secured between rods 20 and the ends of frame 16. An alternating rotary movement is then imparted to the agitator, and the clothes are carried back and forth through the water. The dirt is removed from the clothes during this operation by the action of the water and the clothes rubbing against ribs 10. When the latter method is employed the clothes are placed in the bottom of the receptacle and the agitator is lowered until the side portions 18 of the cups rest upon the clothes. An alternating rotary movement is then imparted to the agitator and when the latter is turned in the direction of arrow *a*, Fig. 5, the cups will be thrown to the position shown in said figure by their lower ends engaging the clothes. When the direction of motion is reversed the pressure of the clothes against the lower ends of the cups will cause the latter to rock in the direction indicated by dotted arrows *b*. This action of the cups forces the water down through the clothes and at the same time the lower edges of the side portions 18 press downward upon the clothes and assist the water in forcing the dirt therefrom. During this operation the clothes are prevented, to a

large degree by means of the ribs, from moving back and forth with the agitator and becoming wadded beneath the cups.

Having thus described my invention, what I claim is:—

1. In a washing-machine, the combination of a receptacle, a frame within said receptacle, means for actuating said frame, and a plurality of cups rockingly-mounted in the frame, the rocking movement of said cups being limited by their sides contacting with the frame.

2. In a washing-machine, the combination of a receptacle, a frame within said recepta-

cle, means for actuating said frame, and a plurality of cups rockingly-mounted in the frame, said cups being of triangular form in cross-section and having longer sides than ends so that the former may contact with the frame and limit the rocking movement of the cups.

In testimony whereof I affix my signature, in the presence of two witnesses.

EDWARD H. BRADEN.

Witnesses:

F. B. ELLIS,
H. H. CROSS.