

M. H. HOWELL

Cutting Soap.

No. 63,898.

Patented April 16, 1867.

Fig. 1

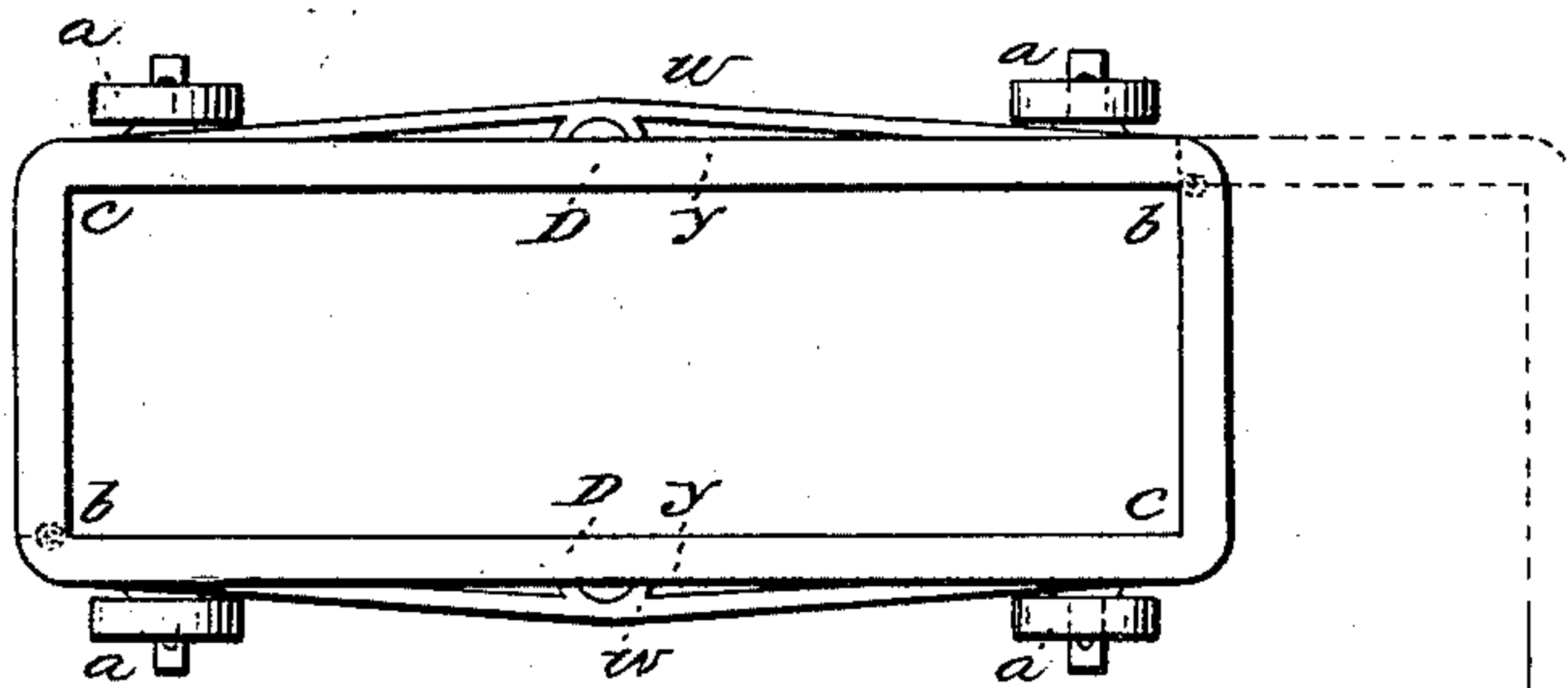


Fig. 2

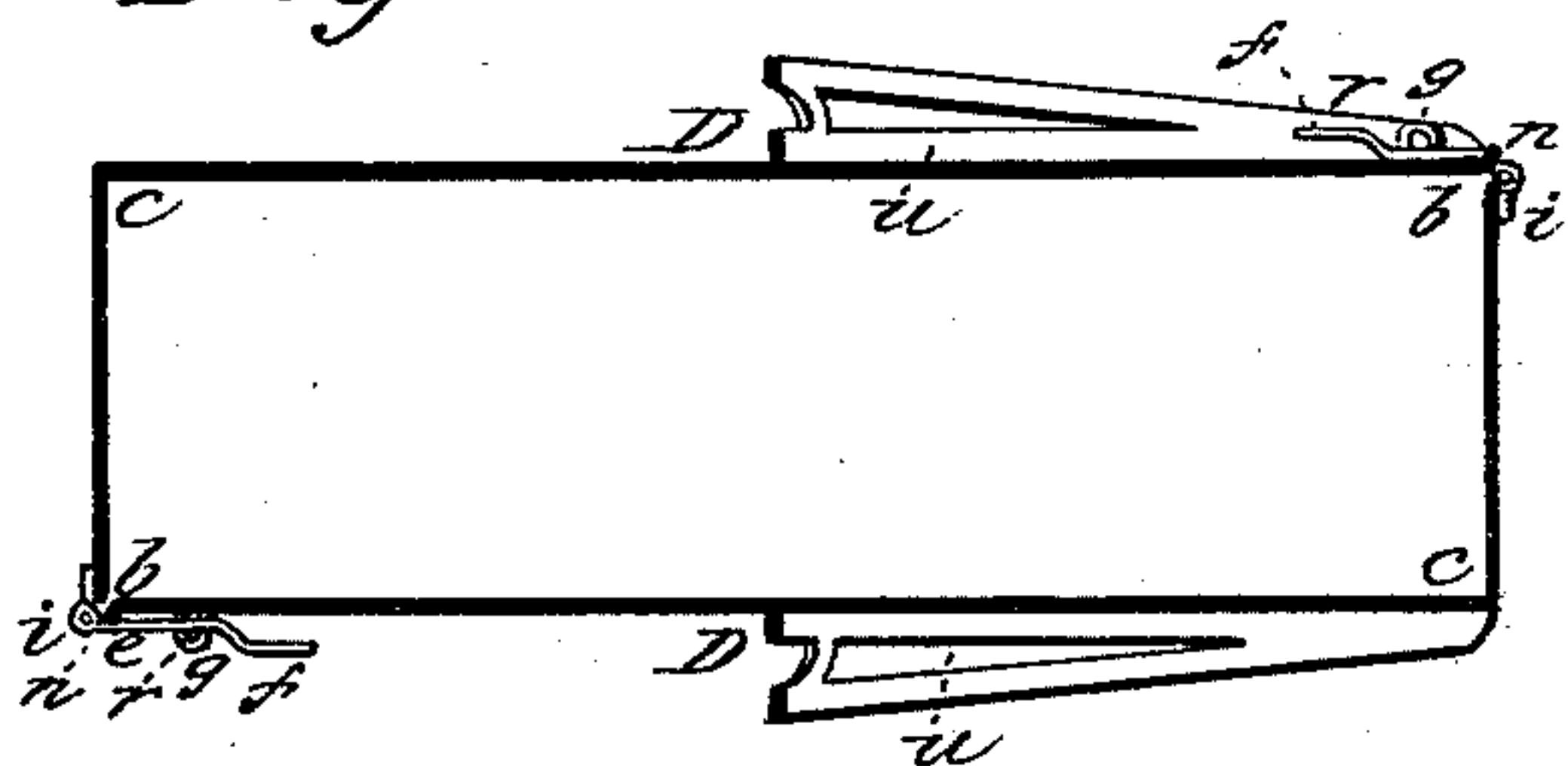


Fig. 3

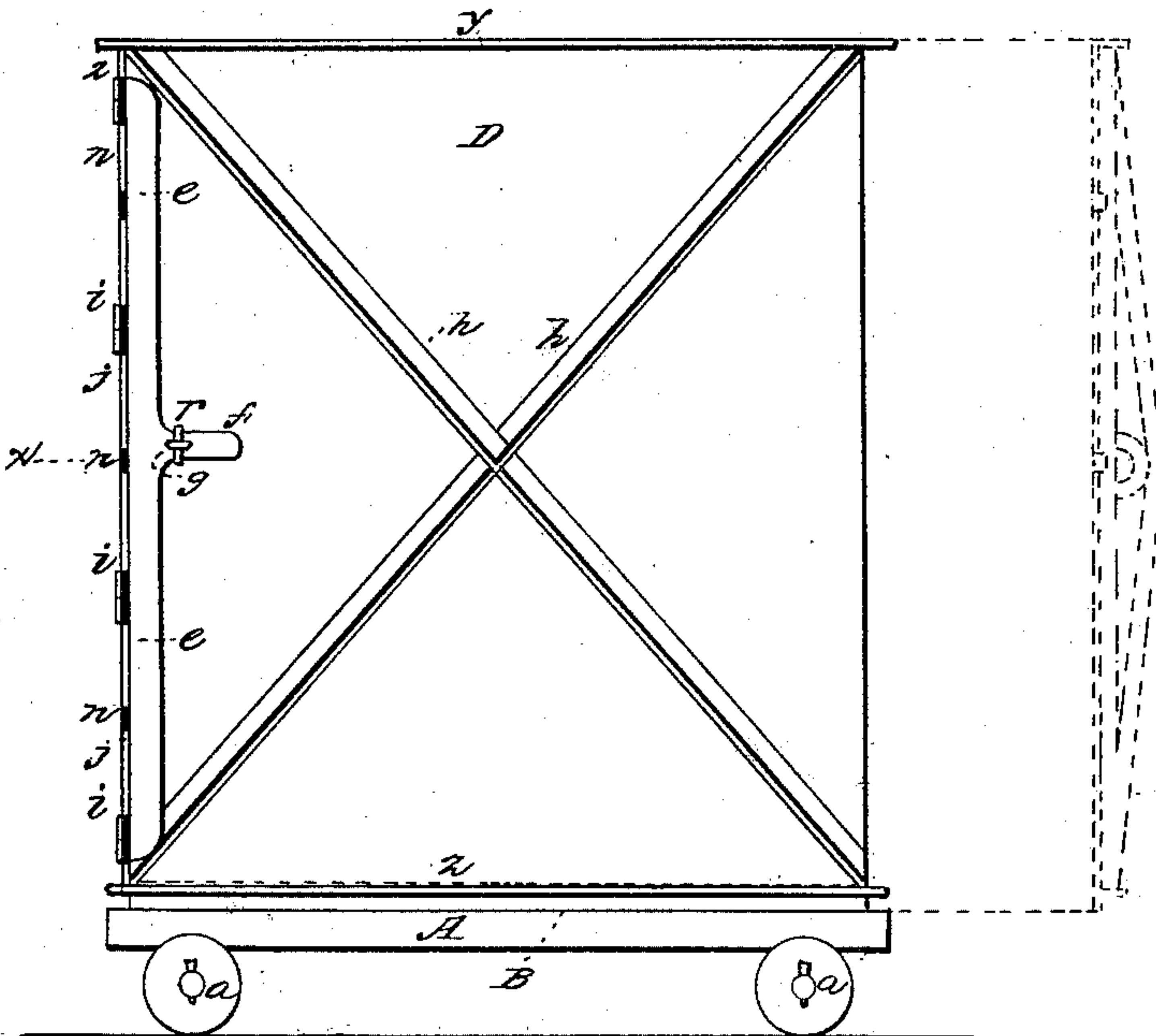
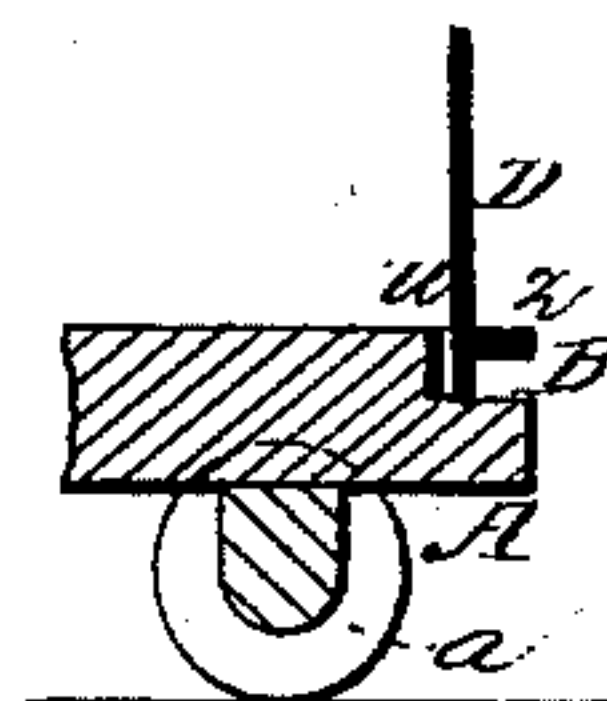


Fig. 4



Witnesses:

Jas. & Kohup  
J. W. Cornby

Inventor:  
M. H. Howell

# United States Patent Office.

MATTHIAS H. HOWELL, OF NEW YORK, N. Y.

*Letters Patent No. 63,898, dated April 16, 1867; antedated March 27, 1867.*

## IMPROVEMENT IN SOAP FRAMES.

The Schedule referred to in these Letters Patent and making part of the same.

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, MATTHIAS H. HOWELL, of the city, county, and State of New York, have invented certain new and useful Improvements in Soap Frames; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a plan or top view.

Figure 2 is a horizontal transverse section taken in the line *xx* of fig. 3.

Figure 3 is a side elevation.

Figure 4 is a detached section showing the packing, which prevents the escape of the fluid soap at the bottom of the mould.

Similar letters of reference indicate corresponding parts in all the figures.

The object of this invention is to obtain a soap frame which will possess in a much higher degree than those heretofore constructed the advantages of being more easily removed from the block of soap, of having its parts securely fastened together when in use, of preventing the leaking or escape of the soap from the bottom, and of having its sides so strengthened as to prevent them from being bulged outward by the pressure of the mass of soap within them. It consists in the division of the upright portion of the frame vertically and diagonally to its sides into two halves or parts, and in a novel mode of connecting the said halves or parts, whereby they are held very securely together, at the same time that great facility is afforded for opening them when required and removing them from the block of soap and from the base or bottom of the frame. It also consists in a novel arrangement of suitable packing around the lower parts of the vertical portions of the frame, between such vertical portions and the base or bottom, whereby a tight joint will be formed around the said bottom of the frame. It further consists in one or more trusses arranged diagonally upon each side of the frame and used in connection with diagonal crossed braces of angle-iron in such a way as to strengthen the said sides against the outward pressure of the enclosed mass of soap.

To enable others to understand the construction and operation of my invention, I will proceed to describe it with reference to the drawings.

A is the base or bottom of the frame, and is supported upon small wheels, *a*. A rebate, B, is formed around the edge or periphery of this bottom, in which are placed the lower parts or edges of the vertical parts of the frame, as represented in figs. 3 and 4. The vertical part of the frame is rectangular in shape, and is divided vertically into two halves or portions, D D, the division being vertical and diagonal from one corner to another, as shown at *b b* in figs. 1 and 2, the two remaining corners, *c c*, being left solid. Each of the halves or portions D is made of sheet iron, bent into suitable form and stiffened and strengthened in the manner hereinafter fully set forth, these two halves being placed together with their lower edges in the rebate B and surrounding the raised portion of the bottom A, and thus constituting the vertical part of the rectangular frame, into which the fluid or semi-fluid soap is poured and allowed to harden into a block, the frame being open at the top to permit the admission of the soap. The two halves D are connected and secured together as follows: Upon one of the vertical edges of each half, D, at the divided corners *b b*, is hinged a vertical locking bar, *e*, which is provided with a hasp, *f*, which fits upon and over a staple, *g*, on the opposite half of the frame, and is firmly held thereon by a pin or key, *r*. The hinges *i* of each bar *e* project outward a short distance, as clearly shown in figs. 2 and 3, and the said bars are so formed that a narrow space or slit, *j*, is formed between the inner edge of the said bar *e* and the vertical edge to which it is hinged. Situated at suitable distances apart upon the adjacent vertical edge of the opposite half D of the frame are a series of hooked lugs, *n*, which project into the space or slit *j*, when the hasp *f* is secured upon the staple *g*, as hereinbefore mentioned, and being firmly pressed against the inner side of the said bar *e*, securely lock the two contiguous edges of the two halves D together and prevent them from being forced apart by the outward pressure of the soap within them, there being one of these bars *e*, with its appurtenances, at each of the divided corners *b b*, as aforesaid. When it is desired to turn one-half of the vertical part of the frame outward upon the other, as shown in red lines in figs. 1 and 3, one of the pins *r* is removed from its staple *g*, and the bar *e* connected therewith is turned back upon its hinges *i* clear of the lugs *n*, acting upon it so as to allow either half, D, of the frame to be swung or turned outward upon the



hinges *i* at the opposite corner *b* of the frame. Both halves of the frame can thus be removed from the block of soap by opening only one of the corners *b*, or they can be removed separately by disconnecting them at both of the said corners in the manner just explained. To prevent the soap before hardening from escaping or leaking from the bottom of the frame, a packing composed of one or more strips of India rubber or other suitable material, is placed in the rebate *B* upon and around the outer edge or periphery of the raised portion of the bottom *A*, as clearly shown at *u* in fig. 4, in such a way that when the two halves of the frame are secured upon the said bottom, as hereinbefore fully described the packing *u* will be tightly clamped between the said halves of the frame and the said raised portion of the bottom, and thus form a tight joint to prevent the escape of the soap. In order to prevent the broad sides of the frame from being bulged outward by the pressure of the soap contained therein, each of the said sides is stiffened by diagonal crossed braces *h h*, made of angle-iron and secured to the sides by any suitable means. Each of these braces extends from one of the lower corners of the side to which it is attached diagonally across the said side to the opposite upper corner, the two braces on each side of the frame crossing each other in the centre, as shown in fig. 3. In combination with these crossed braces of angle-iron are used diagonal trusses, *w*, represented in figs. 1 and 2, these trusses being firmly secured longitudinally upon the diagonal braces *h*, and there being one or more of the said trusses upon each of the broad sides of the frame. The said sides of the frame may be still further stiffened by turning their upper and lower edges over to form flanges, as shown at *y* and *z*, fig. 3.

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

1. The frame, divided vertically and diagonally through two corners into two parts or halves, substantially as herein set forth for the purpose specified.
2. The hinged locking bars *e* and lugs *n*, arranged with reference to each other and operating to lock the two parts or halves of the frame together substantially as herein set forth.
3. The packing *u* within the rebate around the base or bottom *B*, in combination with the diagonally divided upright portions of the frame, substantially as herein set forth for the purpose specified.
4. The diagonal trusses *w*, arranged with reference to the diagonal crossed braces *h h*, and with the sides of the frame, substantially as herein set forth for the purpose specified.

M. H. HOWELL.

Witnesses:

J. W. COOMBS,

A. LE CLERC.