

No. 632,226.

Patented Aug. 29, 1899.

W. MENGES.
PORTABLE FIRE ESCAPE.

(No Model.)

(Application filed Mar. 13, 1899.)

2 Sheets—Sheet 1.

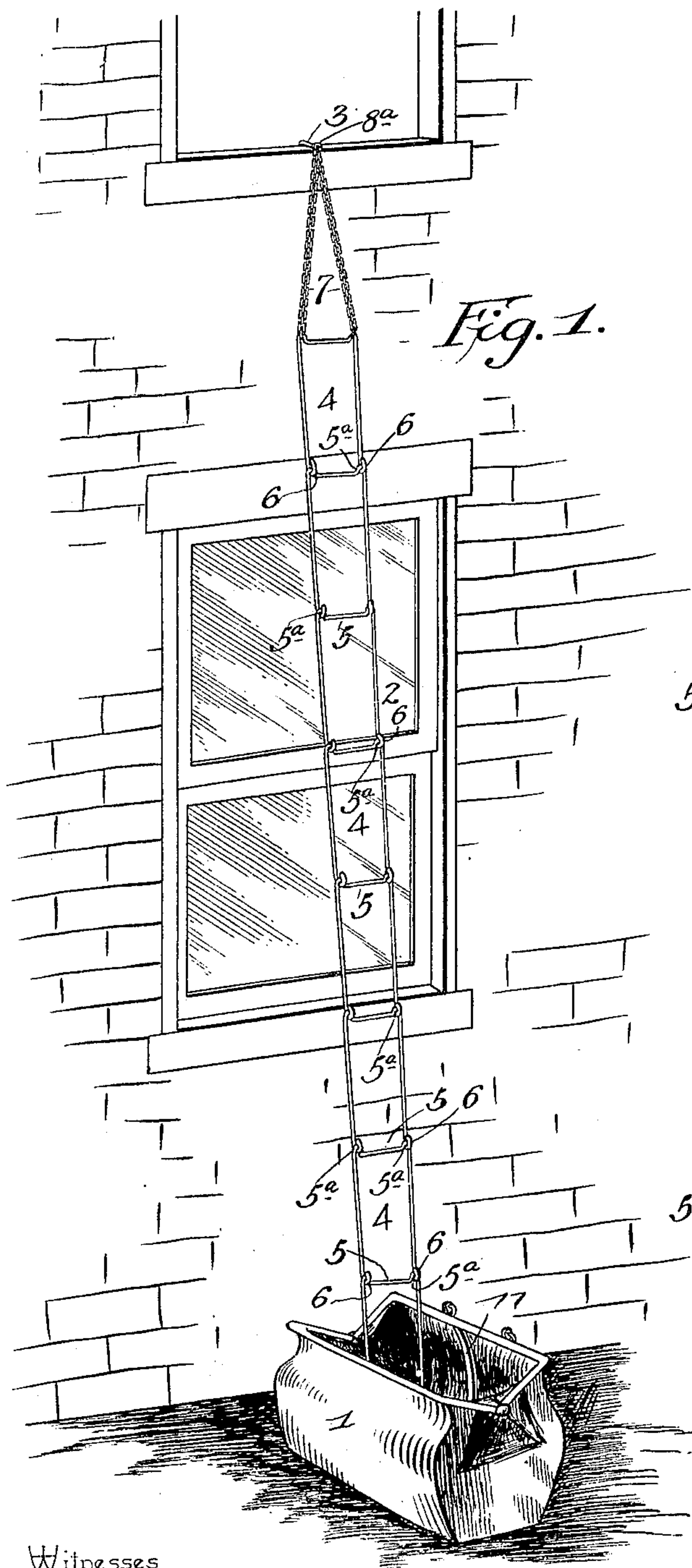


Fig. 1.

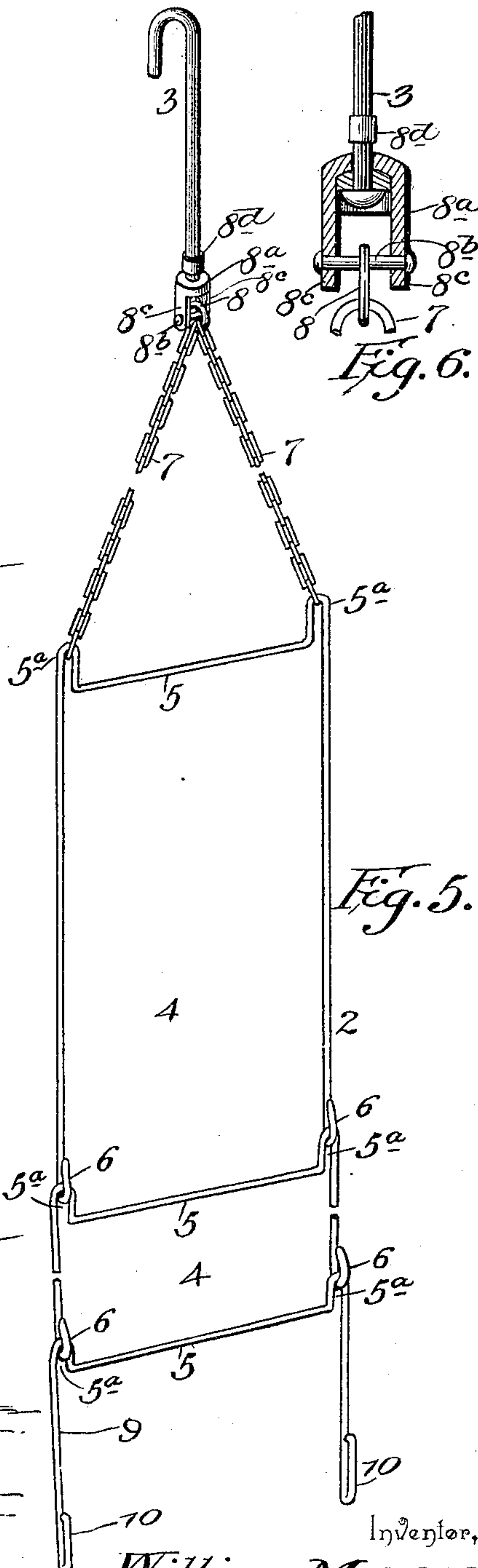


Fig. 5.

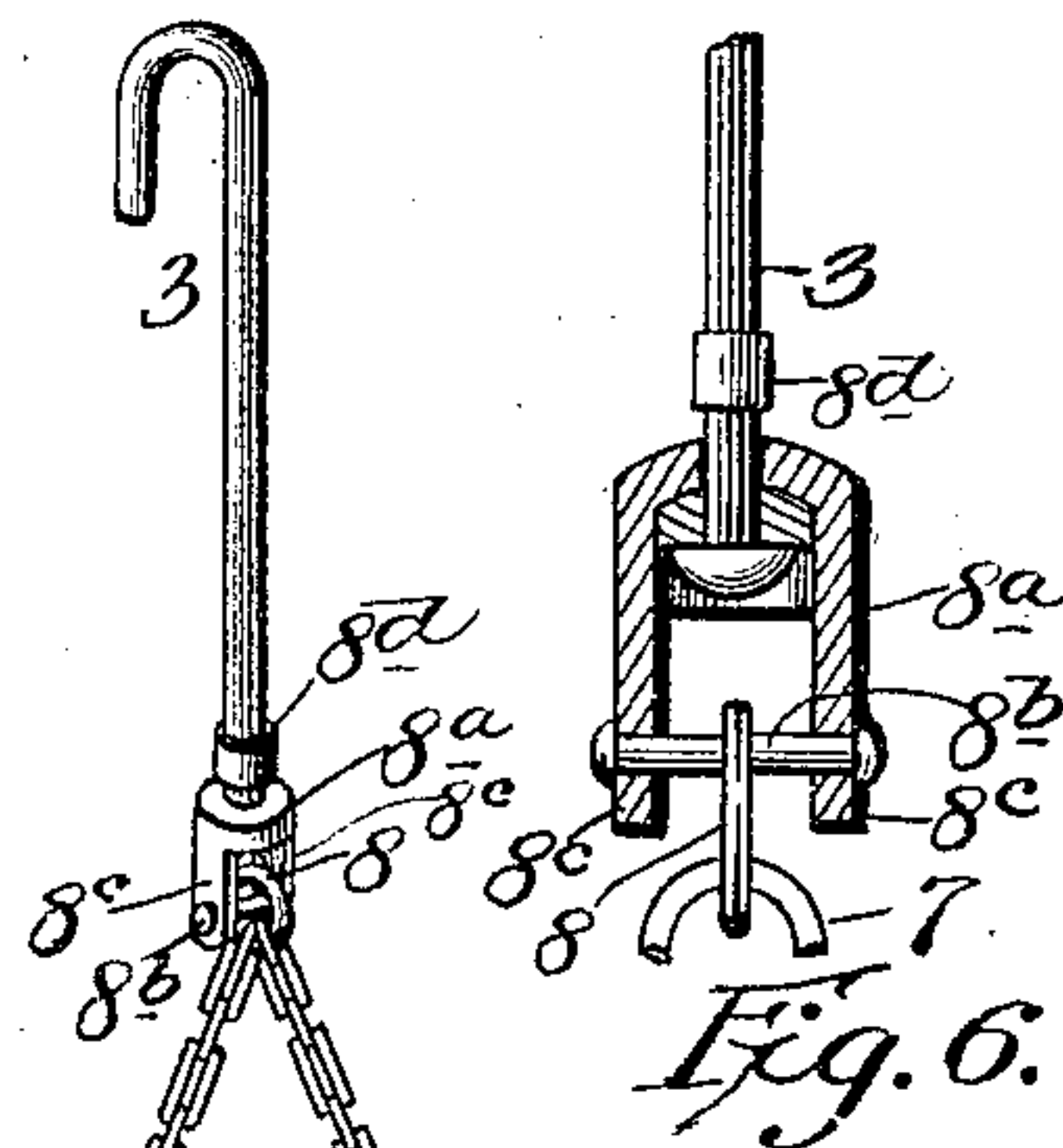


Fig. 6.

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2 Sheets—Sheet 2.

Fig. 2.

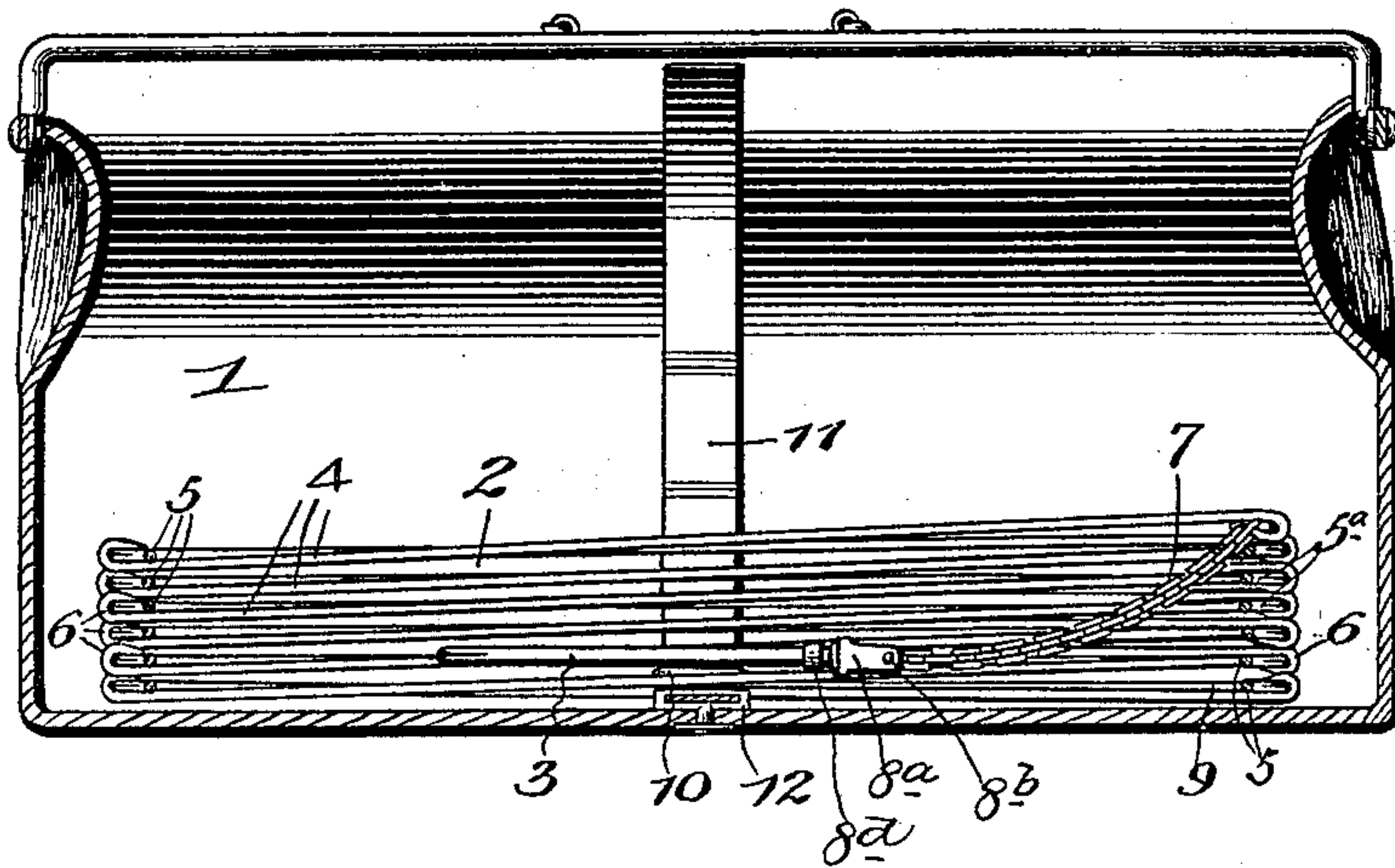
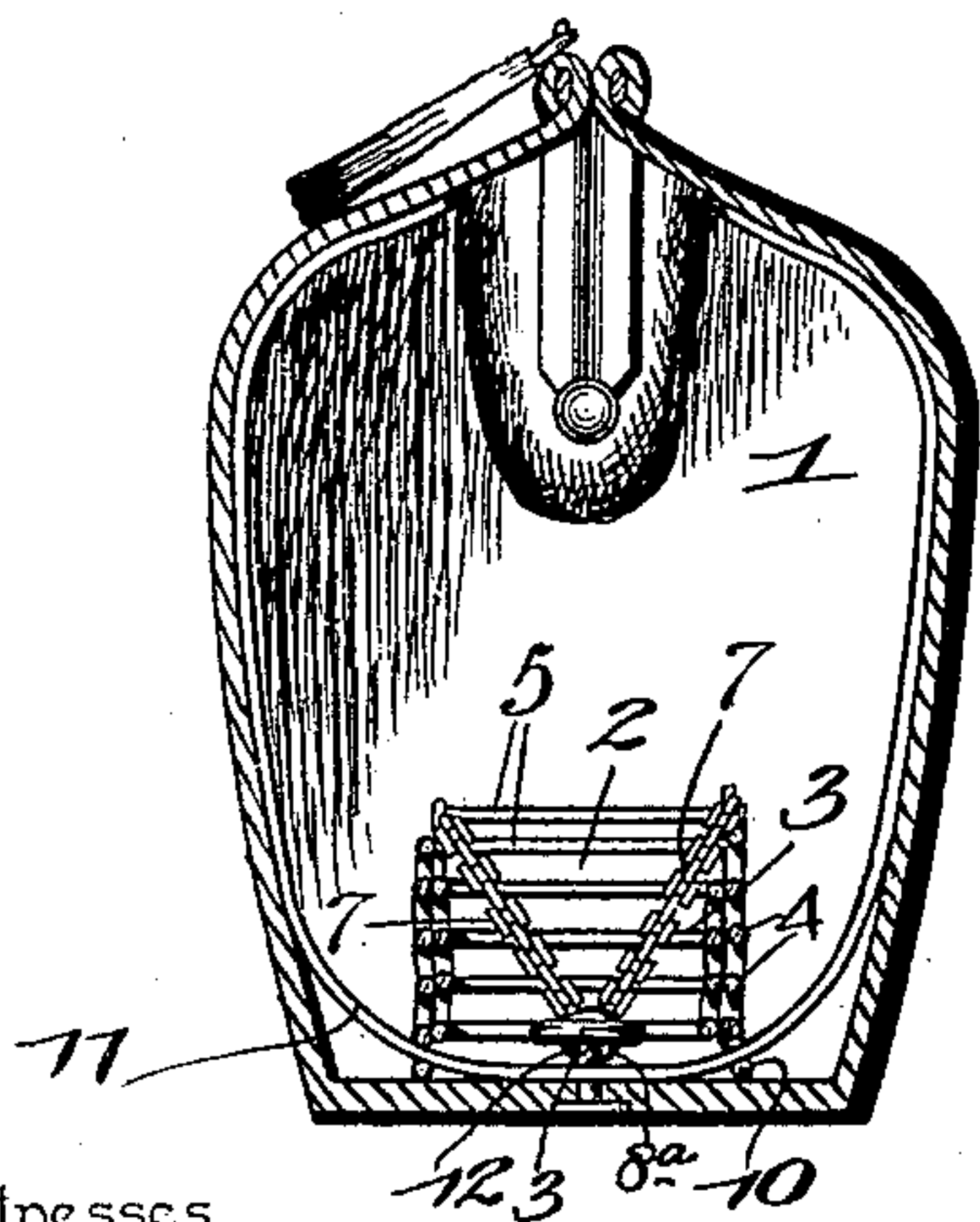


Fig. 3.

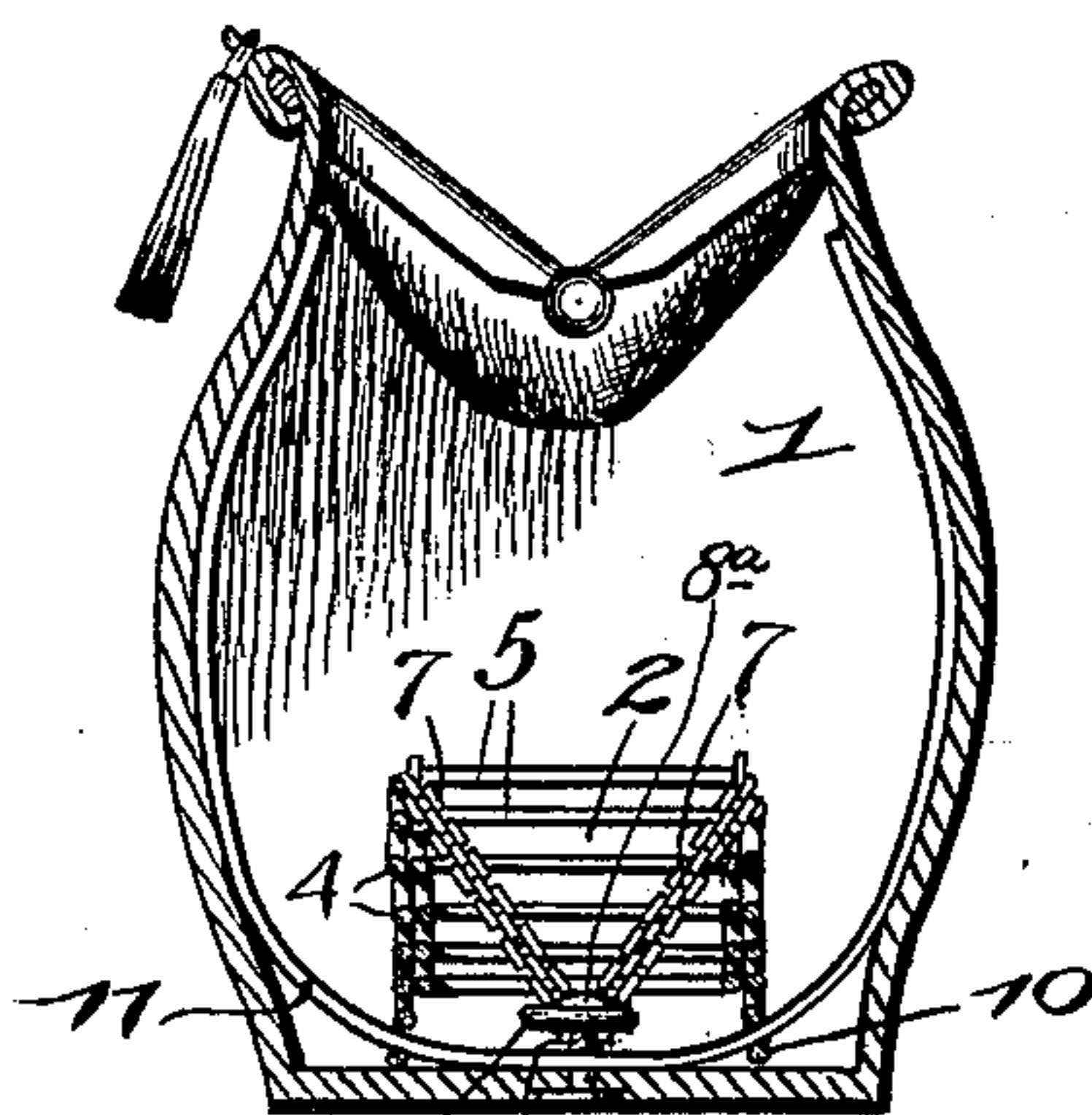


Witnesses

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Fig. 4.



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UNITED STATES PATENT OFFICE.

WILLIAM MENGES, OF MONTGOMERY, PENNSYLVANIA; SUSAN C. MENGES
AND MINNIE A. MENGES ADMINISTRATRIXES OF SAID WILLIAM MENGES,
DECEASED.

PORTABLE FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 632,226, dated August 29, 1899.

Application filed March 13, 1899. Serial No. 708,876. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM MENGES, a citizen of the United States, residing at Montgomery, in the county of Lycoming and State of Pennsylvania, have invented a new and useful Portable Fire-Escape, of which the following is a specification.

The invention relates to improvements in portable fire-escapes.

The object of the present invention is to improve the construction of portable fire-escapes and to provide a simple, inexpensive, and efficient one adapted to be connected to and carried within a satchel or analogous receptacle without interfering with the use of the same for carrying other articles necessary for travel and capable of being readily attached to a window-sill or other suitable support and of being arranged instantly for use, so that a person may at any time escape from a building in event of a conflagration or other disaster.

Another object of the invention is to enable the satchel or other receptacle containing the fire-escape to be maintained in an open position, so that when the satchel is thrown out of a window the fire-escape will be positively and automatically paid out to arrange it for use.

The invention consists in the construction and novel combination and arrangement of parts, hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of a satchel provided with a fire-escape constructed in accordance with this invention and shown in operative position. Fig. 2 is a longitudinal sectional view of the device, the satchel being closed and the fire-escape arranged therein. Fig. 3 is a transverse sectional view of the same. Fig. 4 is a similar view, the satchel being open. Fig. 5 is a perspective view of a portion of the ladder, illustrating the construction of the hook and the links. Fig. 6 is a detail sectional view illustrating the manner of swiveling the hook to the chain.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates a satchel forming a receptacle for a ladder 2, which is arranged compactly in the lower portion of the satchel, as clearly illustrated in Figs. 2 and 3 of the accompanying drawings, and which is adapted to permit the rest of the space within the said satchel to be employed for holding the various articles necessary for travel and other belongings of the owner; but instead of arranging the fire-escape with a satchel it will be apparent that any analogous receptacle may be utilized. The ladder 2, which is provided at its free end with a hook 3, consists of a series of substantially U-shaped links 4, constructed of stout wire or other suitable material and composed of two sides and a connecting cross-piece 5. The sides of the links are provided at their lower ends with eyes 6, which receive the upper portions of the adjacent links, and the cross-pieces 5, which are preferably arranged at the top of the link, are bent downward or inward adjacent to the side to offset them from the upper terminals of the latter and to provide substantially U-shaped bends 5^a. These U-shaped bends, which extend outward from the body portion of the cross-pieces, are linked into the eyes 6, and they form seats to prevent the said eyes from sliding inward on the cross-pieces, whereby the ladder is prevented from collapsing. The bends 5^a are arranged in the same plane as the sides and the transverse connecting portions to enable the links to fold compactly. The eyes 6 and the U-shaped bends, which are disposed longitudinally of the ladder, form hinge-joints and permit the links to fold compactly on each other, as clearly shown in the accompanying drawings.

The hook, which is preferably constructed of stout metal, is adapted to engage the edge of a window-sill or other suitable support to anchor the fire-escape, and it is connected with the outer link by chains 7, forming a flexible connection and permitting the hook to fold within the links. The chain is preferably continuous, as shown, and it is provided at its center with an extra link 8, dividing the chain into the two portions 7, and connected with the shank of the hook by a swiveled sleeve or coupling 8^a, which permits

the hook to be adjusted without twisting the chain. The coupling is provided with an opening to receive the shank, which is enlarged to form a head, a washer being interposed between the same and the coupling. The link 8 is secured to the coupling by a transverse fastening device 8^b, which passes through perforations of sides or arms 8^c of the said coupling, and the shank of the hook is provided above the latter with a stop 8^d, consisting of a sleeve or collar, but any other form of stop may be employed.

The inner end of the ladder is provided with a short link 9, having eyes 10 at its sides, which receive the sides of a spring 11, whereby the ladder is attached to the satchel. This spring, which is substantially U-shaped, is centrally secured to the bottom of the satchel by means of an eye 12, consisting of a staple or other suitable fastening device; but the spring may be riveted or otherwise secured to the satchel, and the ladder may be connected with the same by any other suitable means, as it may be desirable to conceal the spring within the sides of the satchel. The sides of the spring extend from the bottom of the satchel to the top of the same, and when the fastening device of the receptacle is brought to its releasing position the spring automatically opens the satchel and maintains the same in such position, so that the satchel cannot accidentally close and interfere with the unwinding or straightening out of the foldable ladder. To use the fire-escape, the hook is attached to a suitable support to anchor the free end of the ladder, and the satchel, which has been previously opened, is thrown out of the window to the ground, and as it falls the ladder will be automatically paid out of the satchel and arranged in operative position, so that a person may conveniently descend.

The invention has the following advantages: The combined fire-escape and valise is simple and comparatively inexpensive in construction and is adapted to be readily carried, and it affords a ready means for enabling a person to escape from a burning building and can be quickly arranged in position for use. The ladder is compactly arranged at the bottom of the satchel and does not interfere with the use of the rest of the space therein for containing the other belongings of the owner, and the spring which attaches the ladder to

the satchel operates to hold the latter open, so that when it is thrown out of a window the ladder will automatically unfold. The bends of the connecting portions of the links form offset seats for the eyes 6 and prevent the same from sliding inward toward each other on the said connecting-pieces.

Changes in the form, proportion, size, and the minor details of construction within the scope of the appended claims may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

What is claimed is—

1. A portable fire-escape comprising a receptacle having hinged sides adapted to open, a spring connected with the sides and adapted to swing the same apart automatically and capable of maintaining them in such position, and a foldable ladder arranged within the receptacle and having one end attached thereto and provided at its free end with means for engaging a window-sill or other suitable support, said receptacle being portable, whereby it is adapted to be thrown out of a window to cause the ladder to unfold automatically, substantially as described.

2. A portable fire-escape comprising a satchel, a substantially U-shaped spring arranged therein and adapted to hold the same open, a foldable ladder arranged within the receptacle, composed of links and provided at its inner end with eyes receiving the sides of the spring, and a hook arranged at the outer end of the ladder and adapted to fold with the links, substantially as described.

3. In a device of the class described, a foldable ladder comprising a series of U-shaped links composed of sides provided with eyes, and a transverse connecting portion provided with a central inwardly-offset portion forming bends, said bends being arranged in the same plane as the sides and the transverse connecting portions and being linked into the eyes of the adjacent link, whereby the eyes are prevented from sliding inward on the transverse connecting portion, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

WILLIAM MENGES.

Witnesses:

P. F. HARTRANFT,
C. W. HAIN.