I. W. GILES & B. S. BRYANT.

Bag-Fastener.

No. 222,032. Patented Nov. 25, 1879.

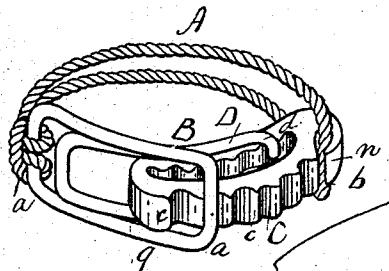


Fig:6.

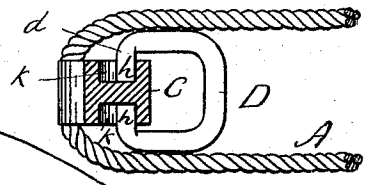


Fig:5.

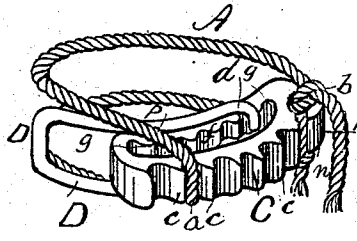


Fig:2.

Fig:1.

Fig:3.

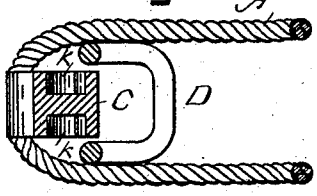


Fig:4.

Witnesses.

W. S. Bellows.

Thomas Lewis.

Inventor.

I. W. Giles

B. S. Bryant

Per Brown Bros

Attorneys

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ISAAC W. GILES, OF SOUTH ABINGTON, AND BRADLEY S. BRYANT, OF NORTH HANSON, MASSACHUSETTS.

IMPROVEMENT IN BAG-FASTENERS.

Specification forming part of Letters Patent No. **222,032**, dated November 25, 1879; application filed May 17, 1879.

To all whom it may concern:

Be it known that we, ISAAC W. GILES, of South Abington, and BRADLEY S. BRYANT, of North Hanson, both in the county of Plymouth and State of Massachusetts, have invented certain new and useful Improvements in Bag-Fasteners, of which the following is a full, clear, and exact description.

As well known, bag-fasteners, in substance, are devices or appliances by which to fasten or secure bags at their necks or mouths against the accidental escape of their contents; and, again, generally they are composed of a band, such as a cord, rope, wire, &c., adapted to encircle the neck or mouth of the bag, and of a device or contrivance which connects the two ends of such band, and is adapted to fasten such ends together, thereby closing and clasping and fastening the band about the neck or mouth of the bag in such a manner as to close the bag against the accidental escape of its contents.

The present invention relates to bag-fasteners of the class above described; and it pertains particularly to the connecting and fastening device or contrivance for the two ends of the encircling band, and this device hereunder, in substance, is composed of a bar or plate having along one edge or face ratchet or hook shaped teeth, and at one end attached in any suitable manner to one end of the encircling band of the fastener, and of a lever which has a fulcrum on an inner series of fulcra formed with said bar or plate, and is applied thereto in such manner that by working or operating it the encircling band, which is not in any way connected—that is, fastened—to said lever, can be drawn about the bag and its free end—that is, its end not attached to the ratchet bar or plate, as above stated—interlocked or engaged with such tooth of the said ratchet-teeth of said bar or plate as may be deemed necessary to obtain the requisite tightness of the encircling band about the bag for the security and safety of the contents of the bag against accidental escape, all substantially as hereinafter described.

In the accompanying plate of drawings, Figure 1 is a side view of a bag, showing our improved bag-fastener as applied and as closing and securing the mouth or neck of the bag against the accidental escape of the contents of the bag; Fig. 2, a perspective view of the fastener in the closed position of Fig. 1, but detached from the bag; Fig. 3, a perspective view of the fastener detached from the bag and in an open position previous to being brought to the closed position illustrated in Figs. 1 and 2; Figs. 4 and 5, enlarged cross-sections on lines *x x* and *y y*, respectively, of Fig. 1; Fig. 6, a perspective view similar to Fig. 2, but showing a modification.

In the drawings, A represents an encircling band of cord, rope, wire, or any other kind suitable for the purposes of a bag-fastener; and B, the device or appliance of this invention making the connection and fastener of the two ends *a* and *b* of said band. This fastener B is composed in one part of a bar or plate, C, which, by preference, is made of a circular or arc shape from end to end, so as the better to conform to the shape of the bag which it lies about or around when used, and which has along its outer or convex edge or face a series of ratchet or hook-shaped teeth, *c c*, which may be more or less in number and at equal or unequal distances apart, and in the other part of an arm or lever, D, which, by preference, is also made of a circular or arc shape from end to end, so as the better to conform to the shape of the bag which it lies about or around when used, and which, at one end, *d*, is adapted to turn on the plate or bar C as a fulcrum, said fulcrum being at and on a circular or arc-shaped bearing face or edge, *f*, which is inside the circle or arc of the ratchet-teeth *c c*, and has a series of furrows or corrugations, *g*, at equal or unequal distances apart. Each of these furrows or corrugations *g* is shaped to receive the fulcrum end *d* of the lever D, and to make a bearing or support therefor, and in relation to these several bearing or fulcrum furrows or corrugations *g* the said end *d* of the lever D is so applied and arranged on the ratchet bar or plate C that the lever may be freely moved from one end to the other of the said corrugated edge or face, and made to act in either one or the other of its said furrows or corrugations as a fulcrum, according as may be desired or necessary in the use of the fastener, as hereinafter described, and without danger or liability of detachment.

This application and arrangement of the lever to the ratchet bar or plate C, as shown in in the drawings, consists in the side or lateral projections, *h*, of the fulcrum end *d* of the lever D within the recess *k* at each side of the ratchet bar or plate C; but obviously it may be otherwise secured.

One end, *b*, of the encircling band A is attached to one end, *m*, of the ratchet bar or plate C, and this attachment of the band may be secured in various ways—as, for instance, in the manner shown—by making the said end *m* of the ratchet bar or plate C of the shape of a hook, as at *n*, and doubling the encircling band in it; or, again, by having an eye in such end of the bar and attaching the encircling band by a ring or otherwise thereto, and it is not intended to limit this invention to any one particular mode of such attachment.

The end *a* of the encircling band opposite to that attached to the ratchet bar or plate C, as above described, or in any other suitable manner, is looped or doubled, as at *p*, or in lieu thereof may be provided with a ring or eye, so that it may be hung to or placed upon and over the lever D, as shown at *q*, Fig. 6, and may travel over the ratchet face or edge of the bar C, to be engaged with a tooth, *c*, thereof.

The fastener above described is used as follows: First, place it on the part of the bag where it is desired to fasten the bag—as, for instance, on the neck of the bag, near its mouth—and there holding it with one hand, with the other place the encircling band A around the bag, and its free end *a* over the lever D, which lever then pull or otherwise work in the proper manner to draw and pull the band about the bag, and so continue to do, changing the fulcrum of said lever on the ratchet bar or plate C from time to time as may be necessary until the requisite tightness of the band is secured, when, by the then interlock or engagement of the said free end of the band with the tooth of the ratchet-teeth *c* in position therefor, the band is held and fastened, as is obvious. This working of the lever, while it, as above stated, draws the band about the bag, also works the free end of said band along the ratchet-teeth, and thus brings it into such position relative thereto that when thereby the requisite tightness of the band is obtained the band will be then held at such tension and tightness by the interlocking and engagement of its free end with that tooth of the ratchet-teeth over or nearest to which it then is.

The release of the band from the ratchet-teeth is secured by simply working the lever in the proper direction to lift the band out of the tooth of the ratchet-teeth with which it is engaged, and then drawing the free end of the band over and along the lever until it passes off or escapes therefrom, all as is obvious without further explanation.

From the above description it is plain that the lever D and the end of the band on which it works have no connection with each other, except when they are put into connection for the lever to work upon the band, as above described, and that this connection exists only when the lever is worked to lift or pull upon the band, and that at all other times and under all other conditions the lever is free to be moved and worked within the limits of its connection with the ratchet bar or plate entirely independent of said band.

The fastener B, herein described, may be attached directly to a bag, so as to be always in connection with it, and this attachment may be in various ways—as, for instance, through a cord or chain, E, fastened at one end to the ratchet bar or plate C, and at the other end to the bag. Again, the encircling band may be, in part, the bag.

Having thus described our invention, what we claim, and desire to secure by Letters Patent, is—

1. A fastener for bags composed of a toothed plate or bar, C, and of a lever, D, which is hung thereto, in combination with a band, A, all applied and arranged together for the band to be interlocked with the toothed plate by movement of the lever D, said lever being entirely independent of and disconnected from said band, all substantially as herein described, for the purpose specified.

2. The toothed plate C, with the inner series of fulcra, *g*, on which works a lever, D in combination with a band, A, all applied and arranged together for the band to be interlocked with the toothed plate C, and for the lever to operate upon and in relation to the band and to said fulcra, in a manner and all substantially as described, for the purpose specified.

ISAAC W. GILES.
BRADLEY S. BRYANT.

Witnesses:
EDWIN W. BROWN,
W. S. BELLOWS.