2 Sheets—Sheet 1.

# A. L. PITNEY.

## Rope or Line Clasp.

No. 230,436. Patented July 27, 1880.

Fig. 1.

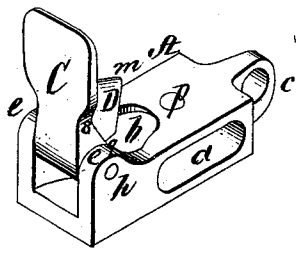



Fig. 2.

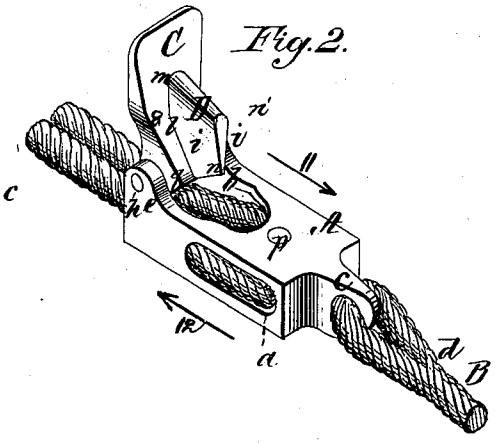



Fig. 3.

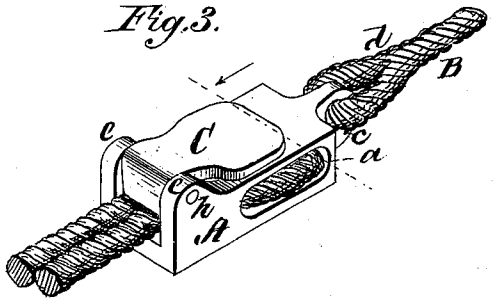



Fig. 4.

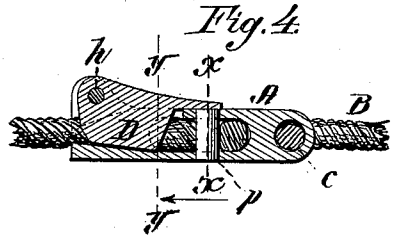



Fig. 6.

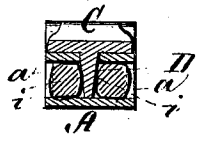
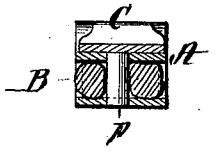



Fig. 5.




Attest:
F. H. Schott.
S. R. Barr

Inventor:
Albert L. Pitney,
per Norman W. Stearns,
Attorney.

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

2 Sheets—Sheet 2.

# A. L. PITNEY.

## Rope or Line Clasp.

No. 230,436. Patented July 27, 1880.

*Fig. 7.*

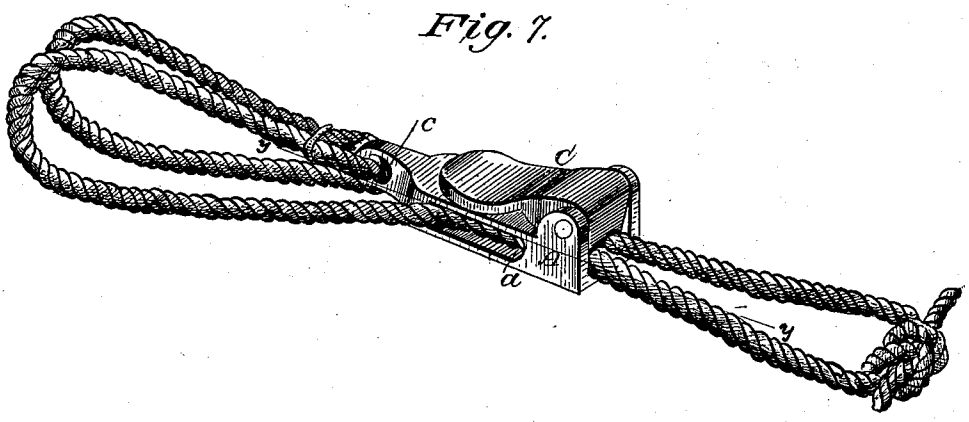
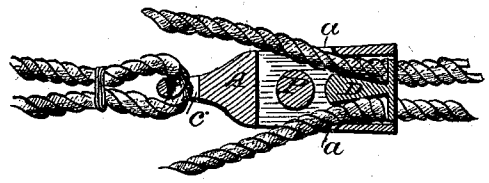



*Fig. 8.*




Witnesses:
Fred. G. Dieterich
B. L. Dieterich

Inventor
Albert L. Pitney
per
W. J. Johnston
Attorney

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

# UNITED STATES PATENT OFFICE.

ALBERT L. PITNEY, OF WASHINGTON, DISTRICT OF COLUMBIA.

## ROPE OR LINE CLASP.

SPECIFICATION forming part of Letters Patent No. 230,436, dated July 27, 1880.

Application filed December 24, 1879.

*To all whom it may concern:*

Be it known that I, ALBERT L. PITNEY, of Washington, in the District of Columbia, have invented certain Improvements in Rope or Line Clasps, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a perspective view of my clamping device in an open position, ready for the reception of the rope or line to be secured thereby. Fig. 2 is a perspective view of the open clamp, with the rope or line applied thereto ready to be fastened in place. Fig. 3 is a view of the same closed. Fig. 4 is a longitudinal section through the center of the same. Fig. 5 is a transverse section on the line *x x* of Fig. 4. Fig. 6 is a transverse section on line *y y* of Fig. 4. Fig. 7 is a perspective view of my clamp, showing the cords inserted through the side apertures, *a a*, instead of around the guide-pin P. Fig. 8 is a horizontal section of the same on the line *y y*, also showing the cords through the side apertures, *a a*, and the wedge-shaped projection D, for pressing them against the side of the block.

My present invention has for its object to provide a simple and reliable device for shortening and lengthening a rope, line, or cord and securely holding it after adjustment, said device obviating the necessity of forming eyes and tying and untying knots, and avoiding the twisting of the rope, &c., and the labor and delay incident thereto; and my invention consists in a block having slots through which the line, &c., is introduced, and a pin, roll, or sheave around which it is guided to change its direction for the purpose of affording a purchase for taking up the slack and a check in paying out the line, &c., a cam-lever pivoted to the block being brought down forcibly upon it when adjusted, whereby it is held without danger of slipping, the block being also provided with an eye or hook, by which it may be readily attached in such places where its use may be found desirable.

To enable others skilled in the art to understand and use my invention, I will proceed to describe the manner in which I have carried it out.

In the said drawings, A represents a block, preferably of metal and of a form approximating rectangular, the interior of which is cut away so as to form a longitudinal opening, *a*, at each side and a recess, *b*, at its top, one end of the block being provided with an eye, *c*, through which is rove one end of a line, B, attached thereto by means of a splice, *d*, or in any other convenient manner. The sides of the other end of the block terminate in lugs or projections *e*, through which passes a pin, *h*, to which is pivoted a lever, C, located and made to move between them. This lever is of the form seen, being inclined downward and outward from 8 to 9, so as to thicken it at its lower end or heel. At the center of this lever, and extending in a direction longitudinal therewith, is formed a double-wedge-shape projection, D, (see Figs. 2 and 6,) the lines bounding the two opposite side faces, *i i*, converging in two directions, viz., from *l n* to *m n'*, and from *l m* to *n n'*, for a purpose presently to be described.

*p* is a guide-pin extending through the block from top to bottom, and located centrally with its width at a point in its length about in line with the centers of the openings *a a* in its sides.

Another method of applying my clasp is by passing the ends of the cord, rope, or line through the side openings, *a a*, and uniting the ends so that the binding or confining loop will be at the end of the block, as shown in Fig. 7, instead of at the side. When used in this manner the eye *c* may be used for taking up or looping the projecting ends of the cord, as shown in Fig. 7.

Having now described the construction of my improved device, I will proceed to enumerate some of the uses to which it may be applied and the manner of operating the same.

It can, when made on a small scale, be conveniently used as a dress or garment supporter, as a clasp for articles of wearing-apparel or for jewelry, as a tourniquet or device for compressing an artery in amputations and in other surgical operations. When made slightly larger, will answer well as a fastener for the cords of mail and other bags, and for holding awning and tent lines after adjustment. A larger size can be used to advantage as a clothes-line clamp and for taking up and lengthening horse-halters, tie-straps, &c. It

may be made of sufficient strength and size for various uses on shipboard. For instance, in trimming the sheets and braces of sails and yards, and in its application to the halyards of the latter, for painters of boats, and for hoisting and lowering in discharging or loading vessels. It may be secured, by means of its eye *c* or by a hook, to a ring-bolt or staple in the deck or bulwarks. It is also useful in adjusting and holding the braces of derricks, and is fitted for almost universal application where ropes, lines, or cords are to be lengthened or shortened, the employment of my improved device obviating the necessity of forming eyes, tying and untying knots, and avoiding the twist of the rope or line and the time and labor incident thereto.

When performing the office of a tourniquet the cord is first made to encircle the limb above the portion to be amputated, and the lever C being carried back into the position seen in Fig. 1, the end of the cord is inserted in the space at one side of the end of the block, between the lugs and under the heel of the lever, and is then passed through the block in the direction of the arrow 11, around the pin or roll *p*, and back through the other side of the block in the direction of the arrow 12, out under the heel of the lever, when, after being tightened by pulling on its free end to sufficiently compress the arteries, the cord is confined in place by bringing down the heel of the lever upon its parallel contiguous portions, (see Fig. 3,) whereby the cord is forcibly compressed between the heel of the lever and the inside of the bottom of the block, simultaneous with which the wedge-shaped faces *i i* of the projection D exert a lateral pressure on the sides of the cord, and the edge *m n* of the projection is crowded (in the direction of the arrow 12) between the contiguous portions of the cord, which has the effect of still further compressing them laterally against the sides of the block, the combined action of the heel of the lever C downward and the double wedge-shape projection D laterally serving to forcibly jam and bind the cord beyond the possibility of slipping, and without abrading or injuring the same. The cord may be readily loosened, when desired, by bringing the lever up into the position seen in Fig. 2. The change in the direction of the cord by passing it around the guide pin or roll *p* affords a purchase in taking up or tightening the cord, and where the latter is subjected to a considerable strain or resistance, as in hoisting or hauling in heavy bodies, the pin or roll also serves as a check in letting out the same.

In its application as a clasp for a dress-supporter the device may be attached to the belt of the wearer by its eye or by a hook, the lower end of the supporting-cord being secured to the dress and the upper end passing through and confined within the block (after the length of the cord is adjusted) by bringing the lever down thereon.

In fastening a mail, grain, or other bag, the line which is used for closing its mouth, after being passed through the block, may be drawn taut to gather up the folds of the opening, which are then securely held by bringing down the lever, Fig. 3.

In some cases the wedge-shape projection may be dispensed with, the heel of the lever being sufficient to compress the line forcibly enough to prevent slipping; but I prefer the construction shown and described, as the efficacy of the device for the various purposes to which it is adapted as a line-fastening is thereby rendered absolutely certain.

I claim as an improvement in devices for clamping lines, ropes, cords, &c.—

1. The block A, with its guide pin, roll, or pulley, *p*, its side openings, *a a*, and recess *b* in its top, and having an eye, *c*, or other means for attaching it in place, in combination with the cam-lever C, pivoted thereto, substantially as described.

2. The lever C, with its wedge-shaped projection D, in combination with and pivoted to the block A, provided with a guide, *p*, openings *a a*, and recess *b*, and with an eye, *c*, or other means for attaching it in place, constructed to operate as and for the purpose set forth.

Witness my hand this 24th day of December, 1879.

ALBERT L. PITNEY.

In presence of—
N. W. STEARNS,
S. R. BARR.