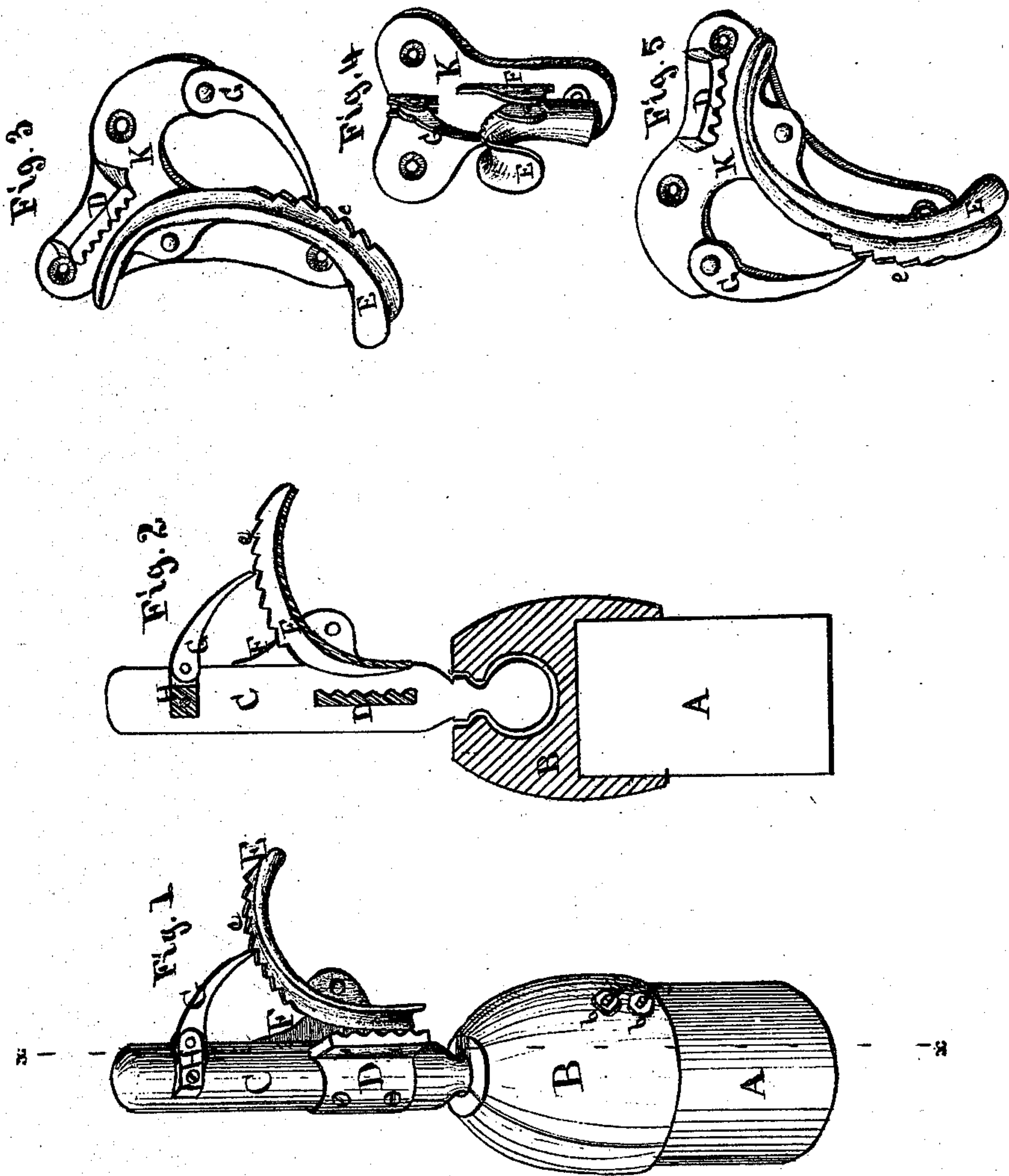


Elliott & Baxter,

Line Fastener.

No. 105927.

Patented Aug 2. 1870.



Witnesses
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EPHRAIM K. ELLIOTT, OF CUYAHOGA FALLS, OHIO, AND URI J. BAXTER,
OF WASHINGTON, DISTRICT OF COLUMBIA.

Letters Patent No. 105,927, dated August 2, 1870.

IMPROVEMENT IN CLOTHES-LINE FASTENER.

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

We, EPHRAIM K. ELLIOTT, of Cuyahoga Falls, in the county of Summit and State of Ohio, and URI J. BAXTER, of Washington city, in the District of Columbia, have invented certain Improvements in Fasteners for Clothes-Lines, Ropes, &c., of which the following is a specification.

The nature of our invention relates to improvements in clutches or clamps for securely holding ropes, wires, &c., in the required positions when used as clothes-lines, mooring-lines, or for any purpose where extended ropes or lines requiring a ready means of fastening and release are used.

It consists of a swivel-post, provided with a clamp device, composed of a grooved semicircular lever, pivoted to the post, and having one side cut with ratchet-teeth, to receive a pawl, also pivoted to the post.

The grooved lever works against a projecting plate or jaw, between which and the lever the rope to be secured passes upward along the groove, and over the upper end or arm of the lever.

The pawl, engaging with the ratchet, keeps the lever in position, and thereby maintains the clutch upon the rope, irrespective of the varying pressure on the end of the lever, caused by the swaying action of the wind or tide upon the extended rope, while any tendency on the part of the rope to slip out of the groove, or over the side of the lever, from the same or like causes, is counteracted by the action of the swivel turning in the direction of the pressure, and thus at all times presenting the upper end of the lever directly thereto.

In positions where the extended rope is not subject to the action of the wind, or from other causes, to a pendulous or vibratory motion, the swivel attachment may be dispensed with, and the clamp device secured to plates of suitable size and shape, convenient to the situation in which they are to be placed.

In the accompanying drawing—

Figure 1 is a perspective view of a clothes-line or snubbing-post having our improved rope-fastening attachment.

Figure 2 is a sectional view of fig. 1, on the line *x x*.

Figures 3, 4, and 5 show different-shaped plates, having the attachment as suited to different positions in which they may be secured.

A represents a clothes-line or snubbing-post.

B, a cap, made in two sections, and with a socket, to receive the ball end of the swivel-post C.

The cap is secured by bolts *b* passing through post A.

Any other convenient form of cap or socket may be used, and the swivel-post C may also be constructed with two or more swivels, or in any convenient way, so that it can revolve freely in the socket, and be of sufficient strength for the position in which it is placed, and the strain it may have to bear.

D is a plate or jaw projecting from the post C, and having its inner side ribbed, so as to bite the rope when pressed against its surface by the lever E, which is pivoted to the swivel-post by means of lug F.

The lever E is made semicircular, and guttered, so as to present a concave groove on its inner surface throughout its entire length, though more or less flattened at the lower end where it bites the rope. For flat lines it can be made flat, instead of with a rounded gutter, the raised rim in that case extending about half way down the arc.

The lever is pivoted to the lug F a little nearer its lower than its upper end, so as to allow of a more extended contact with the rope above the fulcrum than below it.

This arrangement of a long and short arm secures greater pressure and a firmer hold on the rope, while the circular form of the lever promotes an equal pressure on all parts of contact, thereby preventing abrasion of the rope.

Ratchet-teeth, *e e e*, are cut on the inner edge or flange of the lever, and a pawl, G, pivoted in a plate, H, secured to the post C, engages therewith, for the purpose of keeping the lever in position for holding the rope when the strain is relaxed.

K K K, figs. 3, 4, and 5, are plates of different forms, to which are attached substantially the same devices, for the purpose as hereinbefore described.

The operation of the device is as follows:

The end of the rope or line to be secured is passed between the jaw D and the lever, and the line carried up along the groove, and over the upper arm of the lever.

The strain of the rope, bearing down upon the upper arm, will then compress its end between the jaw and the lower arm, and hold it there, while the pawl G, engaging with the ratchet, will keep the lever in that position, whether the strain on the rope is relaxed or not, and the movement of the swivel, obedient to the varying line of pressure, prevents the line from slipping over the side of the lever.

When it is desired to release the rope, all that is necessary is to raise the pawl, and pull on the end

of the rope, or slide the rope over the side of the lever, when it will release itself by its own gravity.

We do not claim as our invention the use of a cam-lever for fastening ropes, either with or without the aid of a ribbed projection or plate.

What we claim is—

1. The lever E, constructed as described, and having ratchet-teeth, e, in combination with pawl G and jaw D, arranged and operating substantially as and for the purpose specified.

2. The combination of swivel-post C, or its equivalent, with lever E, jaw D, and pawl G, substantially as and for the purpose specified.

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Witnesses:

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