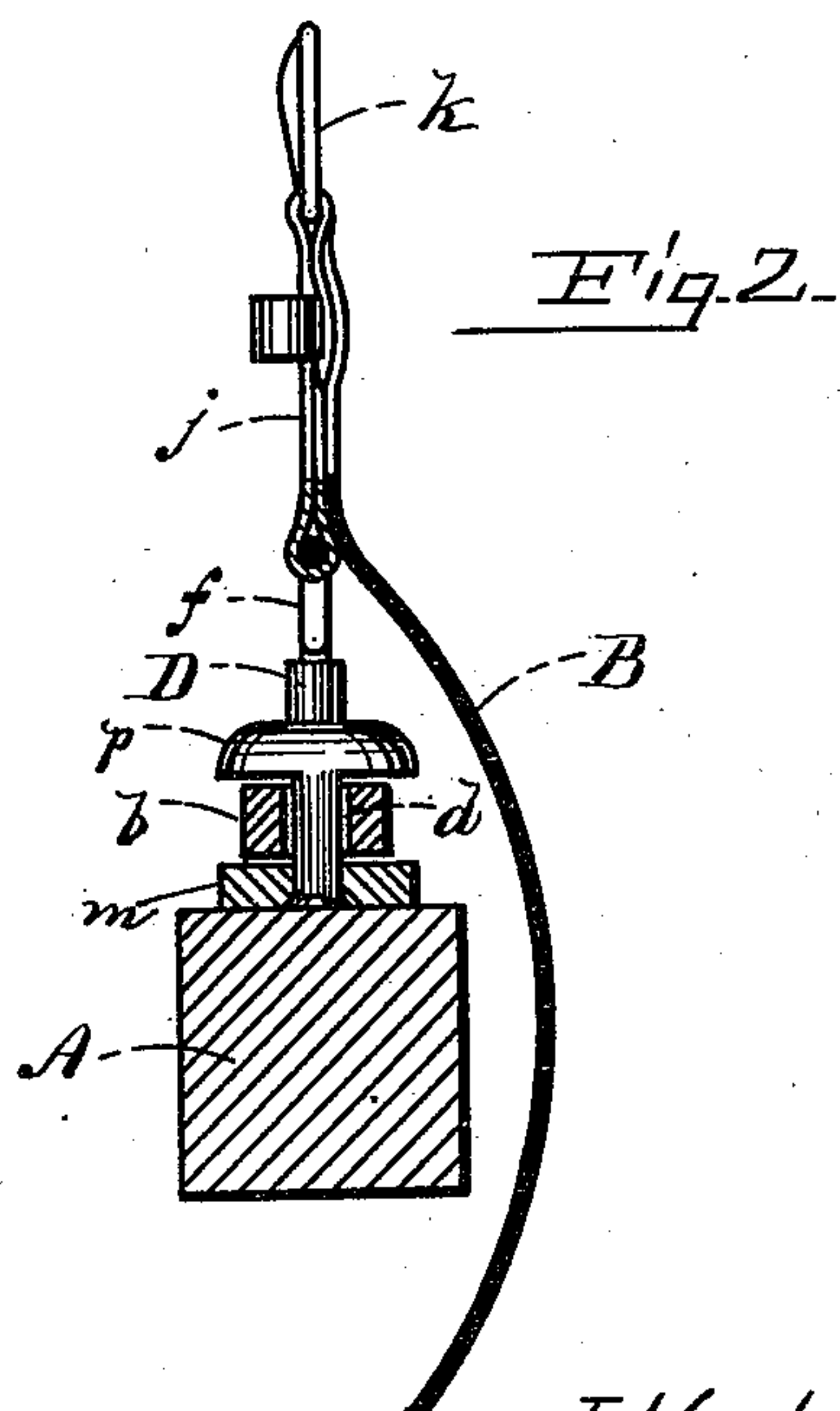
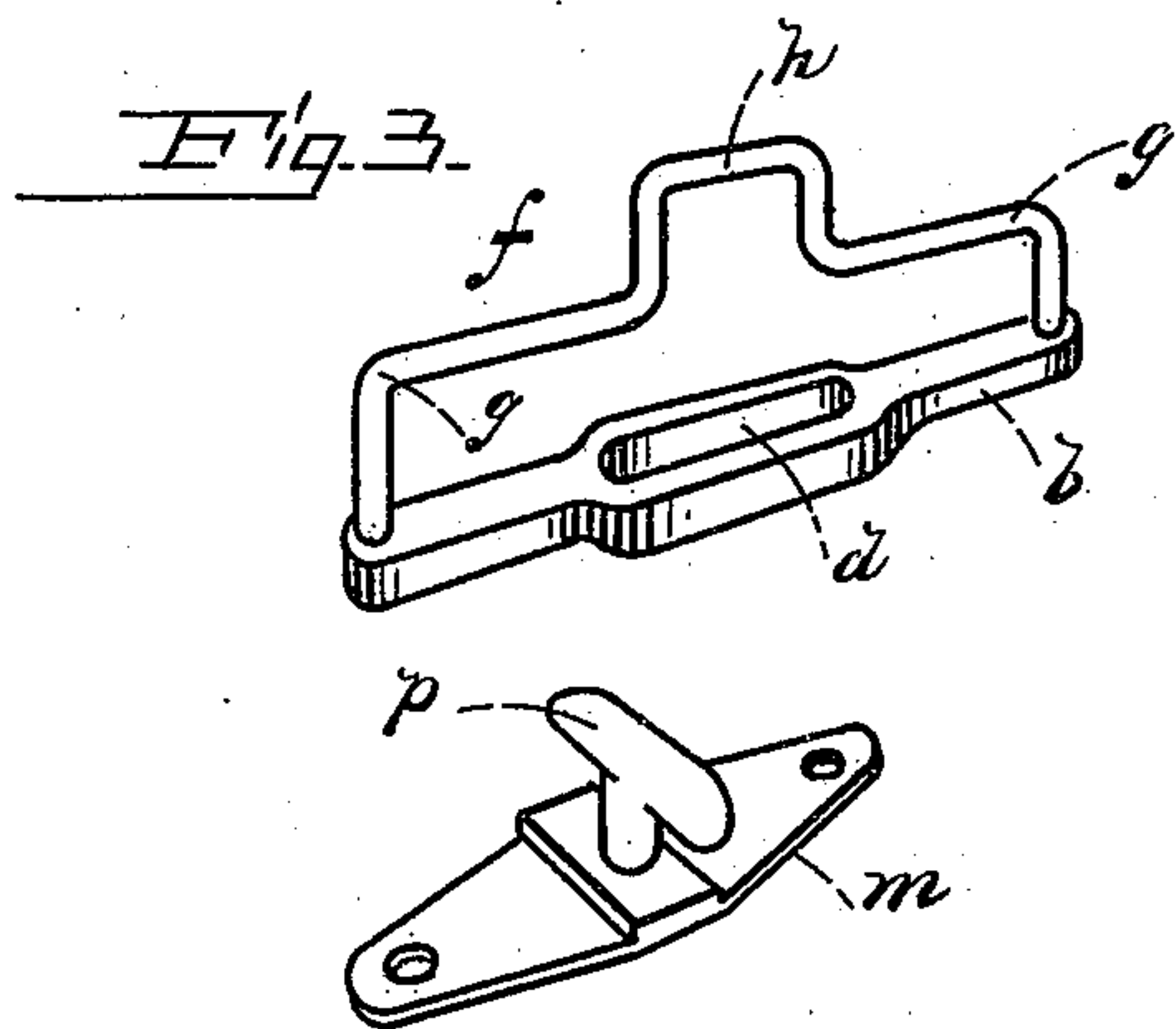
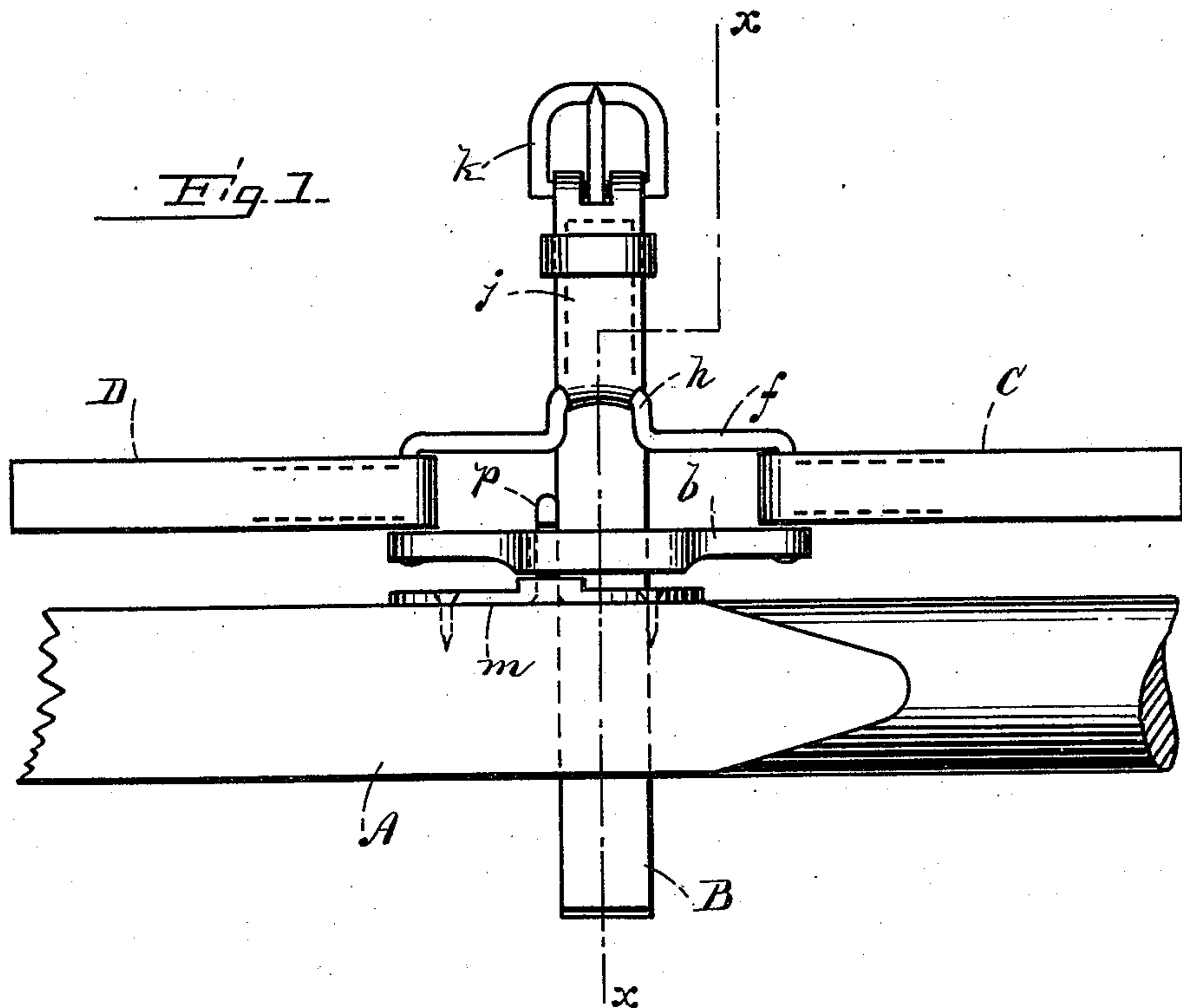


(No Model.)

J. B. CROSBY.
SHAFT TUG.

No. 429,606.

Patented June 10, 1890.



WITNESSES=
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UNITED STATES PATENT OFFICE.

JOHN B. CROSBY, OF BONSHAW, CANADA, ASSIGNOR TO HIMSELF, AND
JAMES H. ORPIN, OF PROVIDENCE, RHODE ISLAND.

SHAFT-TUG.

SPECIFICATION forming part of Letters Patent No. 429,606, dated June 10, 1890.

Application filed November 1, 1889. Serial No. 328,959. (No model.)

To all whom it may concern:

Be it known that I, JOHN B. CROSBY, of Bonshaw, Queen's county, Prince Edward Island, Dominion of Canada, have invented
5 a certain new and useful Improvement in Shaft-Tugs for Harnesses, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which said invention apper-
10 tains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is an elevation showing my improved tug in use; Fig. 2, a transverse section on line *x x* in Fig. 1, and Fig. 3 per-
15 spective views illustrating details of construction.

Like letters of reference indicate corresponding parts in the different figures of the
20 drawings.

My invention relates to a metallic shaft-tug for harness-saddles; and it consists in certain novel features, as hereinafter fully set forth and claimed, the object being to produce a
25 simpler, cheaper, and more effective device of the character than is now in ordinary use.

The nature and operation of the improvement will be readily understood by all conversant with such matters from the following
30 explanation.

In the drawings, A represents the shaft, B the girth-strap, C the breeching or holdback strap, and D the trace. A bar *b* is provided with a longitudinal slot *d*. A movable link E
35 is composed of a metallic bar *b*, provided with a longitudinal slot *d* and a bent wire rod *f*, having its ends secured in said bar. This link has end loops *g* and a central side loop *h*. A strap *j* is secured in the loop *h* of the rod
40 *f*, and is provided in its outer end with a buckle *k* for attaching it to the saddle-strap.

The girth-strap B is secured to the inner side of the strap *j* and projects downward therefrom.

45 The breeching-strap C is secured in one end of the rod-loop *f* and the tug-strap or trace D in the opposite end.

A plate *m* is bolted to the shaft opposite

the saddle when the horse is in position. A T-shaped hook *p* projects vertically from the
50 plate *m*, the head of said hook being arranged transversely on said plate.

My invention as thus described is especially adapted for use when a collar and hames are employed, and in its use the device is se-
55 cured to the saddle by means of the buckle *k*. The strap C is inserted in the breeching-buckle. The horse being in position between the shafts, the bar *b* is turned outward until its slot *d* registers with the head of the hook
60 *p*, which is passed therethrough and said bar turned back parallel with the shaft. The shafts are thus supported directly from the saddle in the same manner as when the ordi-
65 nary circular tugs which inclose the shaft are used. The length of the slot *d* permits sufficient longitudinal play to the shafts. The strain from the tug and "holdback" or breech-
ing is borne directly by the tug and hook, thus enabling the animal to much more
70 readily "handle" the load than when the ordinary trace and whiffletree are employed.

It will be seen that in light vehicles my improvement can readily be used to replace the
75 common tug, as it does not interfere with the action of the ordinary breeching, trace, and breast-strap.

Having thus explained my invention, what I claim is—

1. In a shaft-tug, the combination of an at-
80 taching-plate provided with a T-shaped stud, the top of which extends transversely of the shaft, a bar provided with a longitudinal slot adapted to receive said stud, and a loop se-
85 cured to said bar to which the harness-straps are attached, substantially as described.

2. In a shaft-tug, the combination of a rectangular link having a longitudinal slotted bar on one side and a central loop at its op-
90 posite side, and an attaching-plate provided with a headed stud engaging the slot of said bar.

JOHN B. CROSBY.

Witnesses:

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