(No Model.)

H. A. SEVIGNE.

THILL COUPLING.

No. 481,064. Patented Aug. 16, 1892.

FIG. 5.

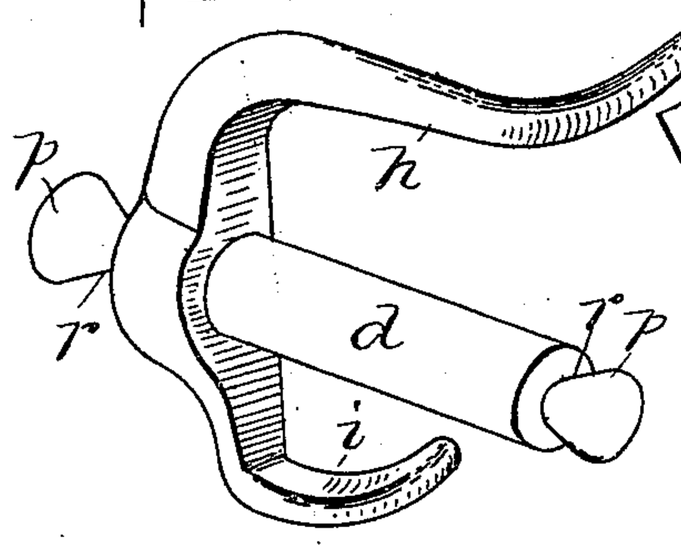


FIG. 3.

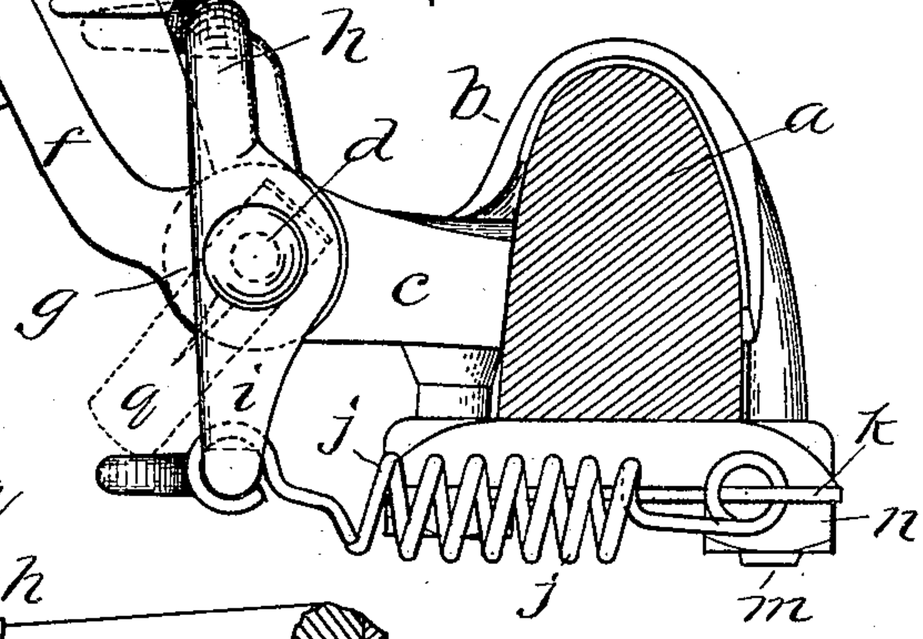


FIG. 1.

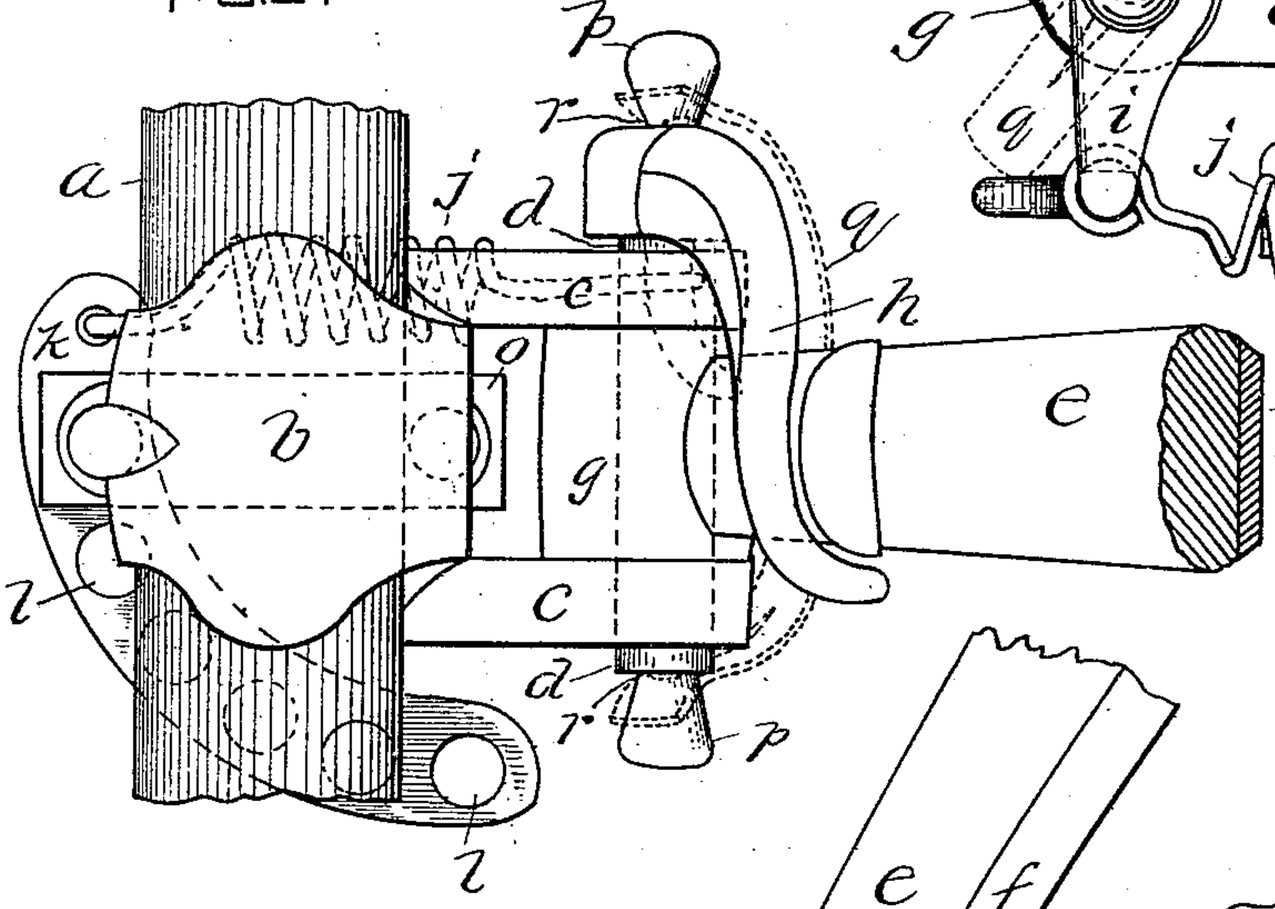


FIG. 2.

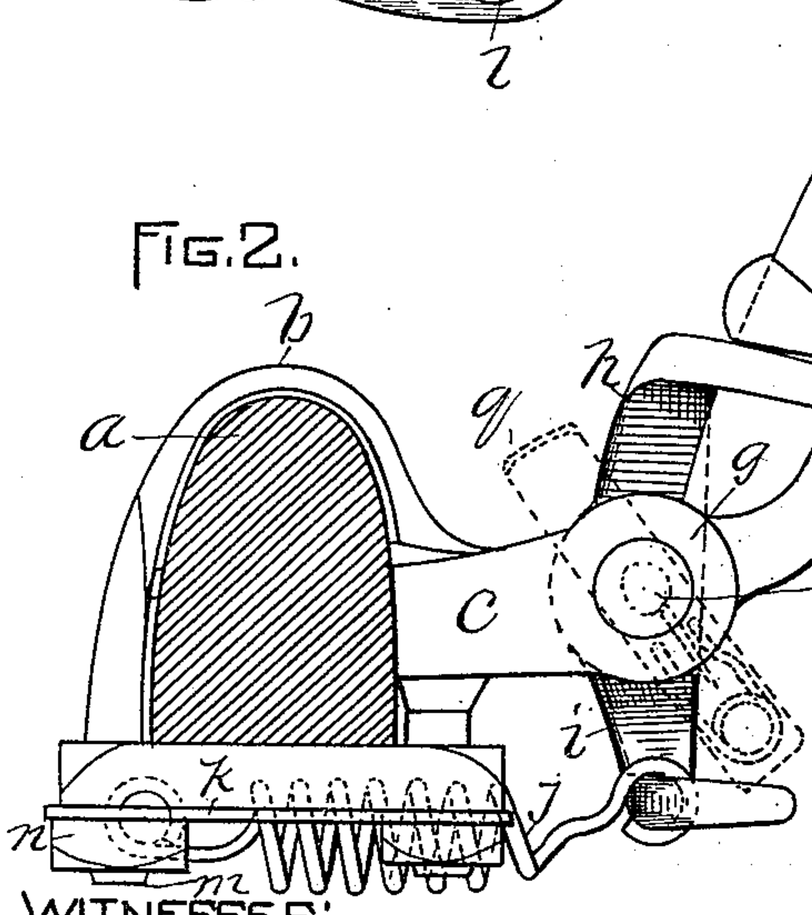
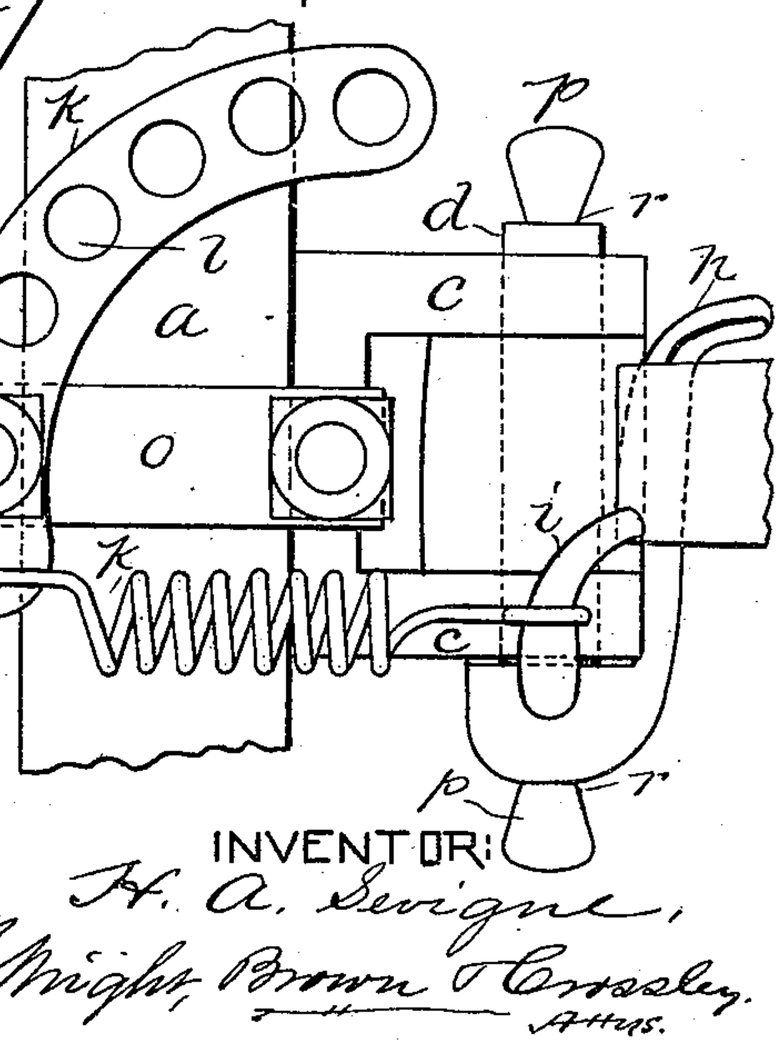


FIG. 4.



WITNESSES:
A. D. Harrison.
H. A. Hall.

INVENTOR:
H. A. Sevigne,
by Wright, Brown & Crossley.
Attys.

UNITED STATES PATENT OFFICE.

HENRY A. SEVIGNE, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO THE SEVIGNE MANUFACTURING COMPANY, OF SAME PLACE.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 481,064, dated August 16, 1892.

Application filed February 23, 1892. Serial No. 422,357. (No model.)

To all whom it may concern:

Be it known that I, HENRY A. SEVIGNE, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Thill-Couplings, of which the following is a specification.

It is the object of my invention to provide such improvements in thill-couplings as will effectively prevent rattling, permit of the ready removal and attachment of the thill, and provide for the adjustment of the tension on the means which press and hold the thill-eye in continual contact with the clip bolt or pin.

My invention consists in providing the coupling or clip bolt with arms, one of which is constructed and arranged to bear upon the thill and the other is adapted to be connected with an adjustable spring, so as that the thill eye or loop may always be forced down or forward into contact with the bolt to prevent rattling, and the tension or stress of the spring may be adjusted to suit circumstances, all as will more fully and clearly appear hereinafter.

Reference is to be had to the annexed drawings, and to the letters marked thereon, forming a part of this specification, the same letters designating the same parts or features, as the case may be, wherever they occur.

In the said drawings, Figure 1 is a top plan view of my invention. Fig. 2 is a view of one side of the same. Fig. 3 is a view of the opposite side. Fig. 4 is a bottom plan view. Fig. 5 is a perspective view of the clip or coupling bolt with its attached arms.

In the drawings, *a* designates the fore axle.

b is the clip encircling the axle and provided with the ears or lugs *c*, through which holes are formed for the reception of the coupling-bolt *d*.

e is the thill having the thill-iron *f* secured thereto in the usual way, the thill-iron being provided with the eye or loop *g*, adapted to be arranged between the ears or lugs *c* and to have the bolt *d* passed therethrough.

The parts thus far described may be formed and arranged, as shown, or have any other suitable or known shape or arrangement.

The coupling-bolt *d* is provided with two arms *h i*, as is most clearly shown in Fig. 5. The arm *h* extends upward and inward, so as that its end may rest upon the thill. The other arm *i* extends down and has one end of a spring *j* connected therewith. The other end of the said spring is adapted to be connected with an adjustable plate *k*, connected with the clip *b*. The object of the plate *k* is to provide means for adjusting the stress or tension of the spring *j*. The said plate may be variously constructed and arranged to enable it to perform its specified functions. As herein shown, it has the form of a segment of a circle and is provided with holes *l* at short intervals throughout its length, through one of which holes one of the screw-threaded shanks *m* of the clip may pass, so that the plate may be held in position between the nut *n* on the shank *m* and the clip cross-bar *o*. By adjusting the plate *k* in various positions the spring *j* may be caused to act with greater or less tension, as will be readily understood without further description. The bolt *d* may be maintained in place in any desired way. As represented in the drawings, heads *p* are formed on the ends of the bolt, and a strip of leather or rawhide *q* (shown only in dotted lines) is slitted at its ends and forced over the heads *p* upon the necks *r*, which means prevents the accidental displacement of the bolt. It will be seen that the pressure of the arm *h* upon the end of the thill will keep the eye of the thill-iron pressed forward or downward upon the coupling pin or rod and prevent any rattling of the parts, and that the tension of the spring can readily be adjusted to suit varying circumstances. Furthermore, it will be seen that the coupling-pins can readily be removed and the thill taken out or replaced without the use of thill-jacks and without inconvenience occasioned by the presence of my improvements.

It is obvious that changes may be made in the form and arrangement of parts comprising my invention without departing from the nature or spirit thereof.

Having thus explained the nature of my invention and described a way of making and using the same, though without attempting to set forth all of its forms of construction or all of the modes of its employment, I declare that what I claim is—

1. A thill-coupling comprising in its con-

struction the thill and thill-iron, the clip, the coupling bolt or pin provided with arms, one of which extends upward and over the thill upon which it bears and the other extending downward, and an adjustable spring connected with the latter arm, as set forth.

2. A thill-coupling comprising in its construction the thill and thill-iron, the clip, the coupling bolt or pin provided with arms, one of which extends upward and over the thill upon which it bears and the other extending downward, the adjustable plate *k* and the spring connected at one end to the last-mentioned arm, and at the other end to the said plate, substantially as set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 1st day of February, A. D. 1892.

HENRY A. SEVIGNE.

Witnesses:
ARTHUR W. CROSSLEY,
A. D. HARRISON.