(No Model.)

C. G. BURDICK.

THILL COUPLING.

No. 509,840. Patented Nov. 28, 1893.

Fig. 1.

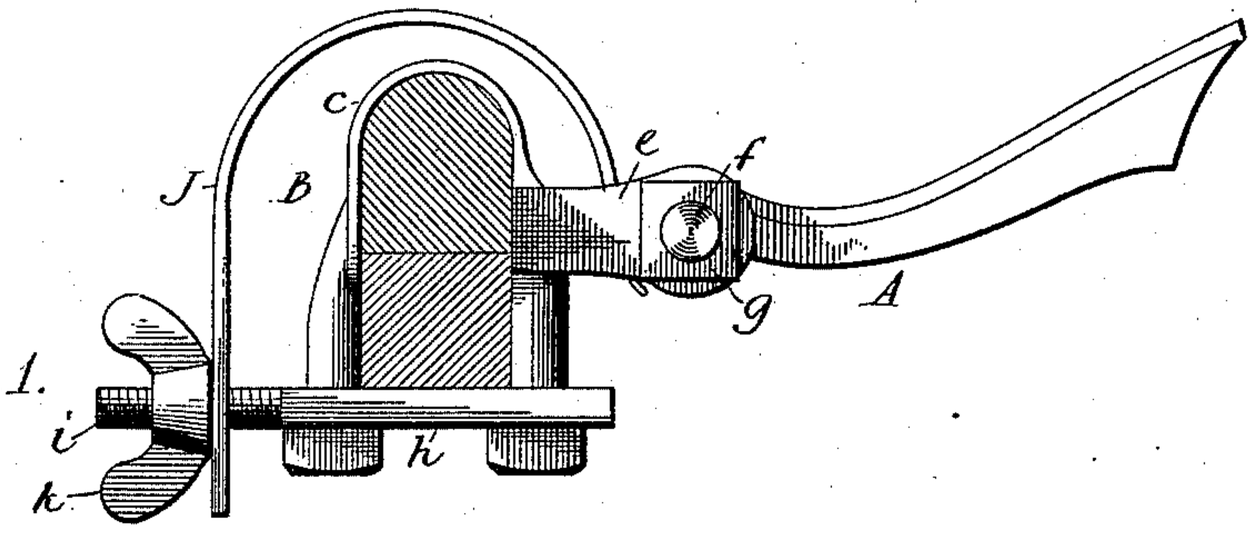


Fig. 2.

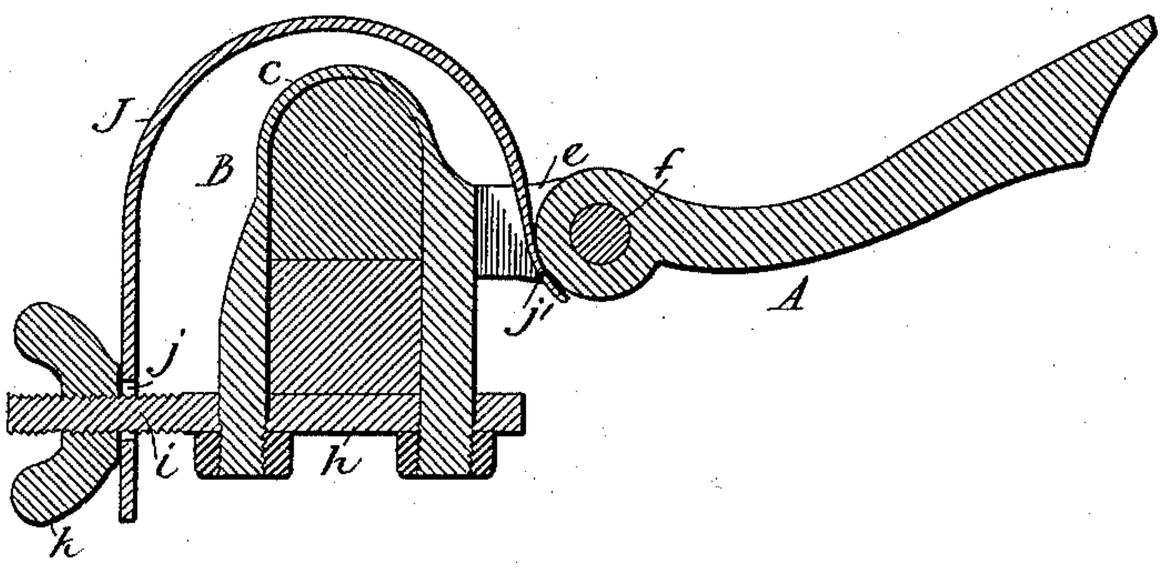


Fig. 3.

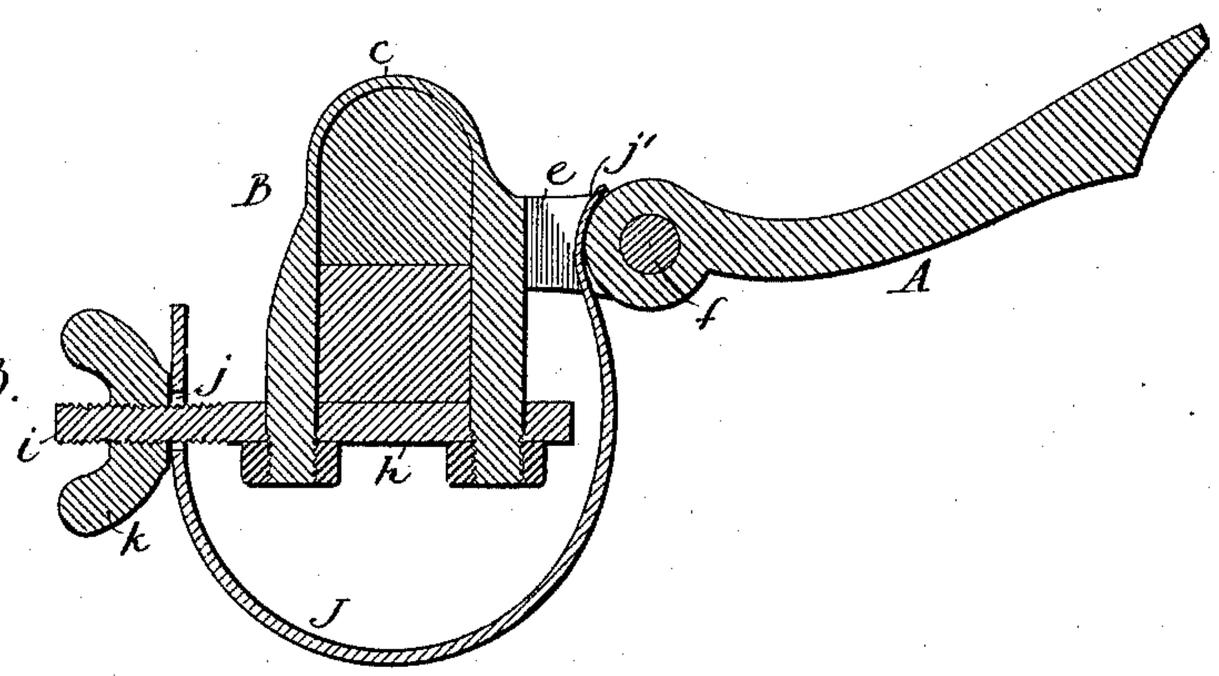
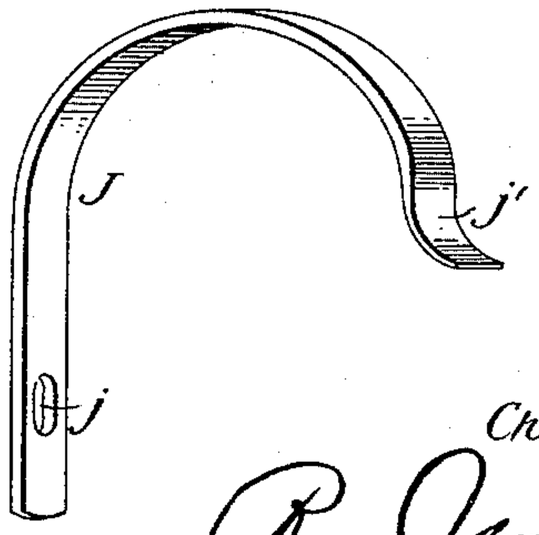


Fig. 4.



Witnesses
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CHRISTOPHER G. BURDICK, OF ANTIGO, WISCONSIN.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 509,840, dated November 28, 1893.

Application filed September 23, 1892. Renewed November 4, 1893. Serial No. 490,048. (No model.)

To all whom it may concern:

Be it known that I, CHRISTOPHER G. BURDICK, a citizen of the United States, residing at Antigo, in the county of Langlade and State of Wisconsin, have invented certain new and useful Improvements in Thill-Couplings; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention has reference to thill couplings and has for its object to provide an anti-rattling device therefor of new and novel construction.

My invention consists in combining with a thill coupling of ordinary construction an anti-rattler formed of a spring which is secured at one end to the clip yoke and which has its outer or free end in yielding connection with the thill; and in a set screw for regulating the tension thereof.

My invention also consists in certain details of construction, relative arrangement and operation of the several parts constituting my improved thill coupling all of which will hereinafter fully and clearly appear from the following description.

Reference being had to the accompanying drawings which form a part of this specification Figure 1, illustrates in side elevation my improved thill coupling and anti-rattler therefor; Fig. 2 a vertical longitudinal section thereof; Fig. 3, a section of a modification; and Fig. 4 is a view in perspective of the anti-rattler detached.

Like letters of reference denote like parts in the several figures of the drawings.

The reference letter A denotes the thill, and B is a thill coupling of ordinary construction, which comprises a clip *c*, ears *e* which span the end of the thill, and the bolt *f* which extends through the ears and thill and is secured against displacement by the nut, *g*.

h is the binding clip yoke through which are passed the ends of the clip, and extending outward from said plate is a screw-threaded pin *i*, formed integrally therewith.

J is the anti-rattler which is formed of steel or other suitable metal having the requisite spring. In the construction shown in Figs. 1, 2 and 4, this anti-rattler is provided with a hole *j* for the pin *i*, and extends upward and over the axle-tree and clip, and downward between the ears of the coupling where it is provided with a bend *j'* to form a seat which abuts against the end of the thill.

k is a thumb-screw which is secured onto the pin and against the anti-rattler as shown in order to regulate the tension thereof, and produce at all times a good anti-rattling connection with the thill. It is evident that any form of spring in cross section may be employed, either round, square or flat, but I prefer to employ the latter as shown.

In Fig. 3, I have shown an anti-rattler constructed in accordance with the above description, but which extends under the axle-tree and upward between the ears as shown. The operation of this construction of anti-rattler is the same as that previously described. I may employ other means for regulating the tension of the spring, it being necessary in order to attain this object, that the outer end thereof be moved toward or from the binding plate, and many devices may be employed for effecting this result, but I prefer to employ the screw-threaded pin and thumb-screw as being simple and effective.

In practice I employ a thill coupling of ordinary construction, with the exception that the binding yoke of the clip is formed with the integral screw-threaded pin. The anti-rattler is passed over or under the axle-tree with the outer end in engagement with the pin, and the inner end between the ears, and the seat abutting against the end of the thill. The thumb-screw is then screwed onto the pin against the outer end of the spring until the requisite tension is attained. In case the coupling becomes worn the pin may be further turned and the tension increased.

I claim—

In a thill coupling, the combination of the clip having the ears thereon, the thill journaled

in said ears, the binding plate having perforations for the ends of the clips and a rearwardly extending externally threaded pin thereon, a flat spring or anti rattler adapted to partially surround the coupling, and having at its rear end a slot through which said pin is passed, and at its forward end, a seat adapted to bear against the thill, and a set screw on the pin adapted to bear against the rear end of the spring, all as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

CHRISTOPHER G. BURDICK.

Witnesses:
J. H. TREVER,
GEO. W. LATTA.