

(No Model.)

J. A. GILES.  
PIPE WRENCH.

No. 391,957.

Patented Oct. 30, 1888.

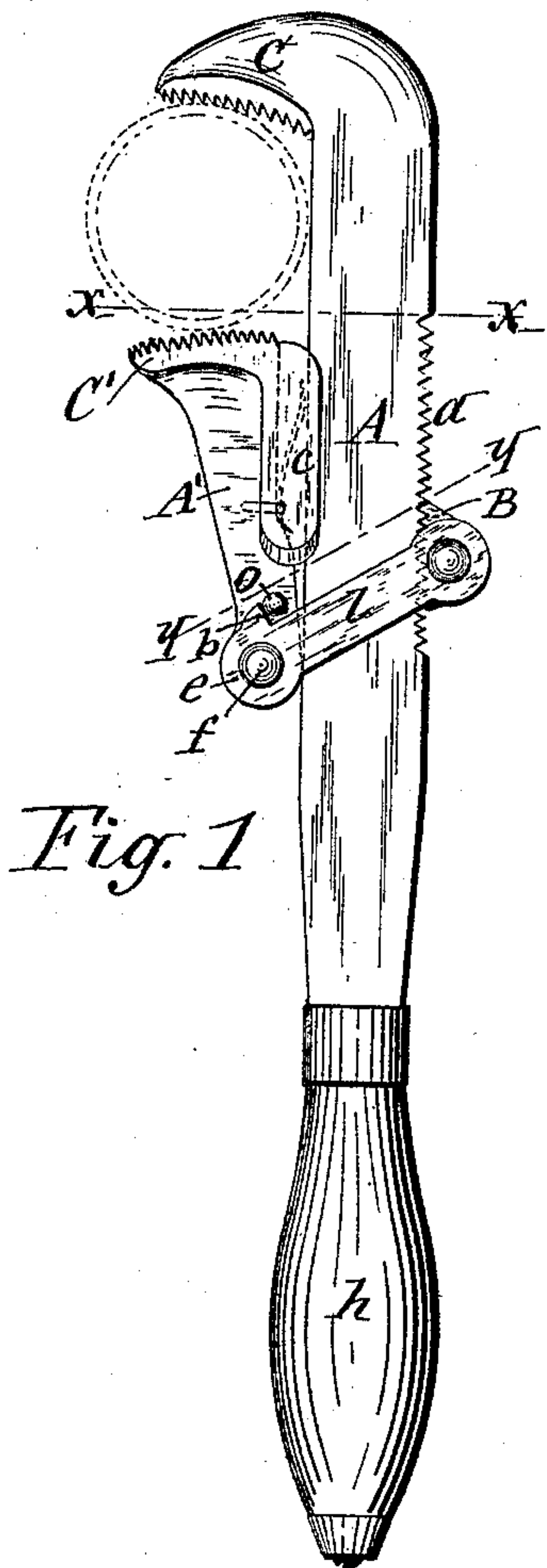


Fig. 1

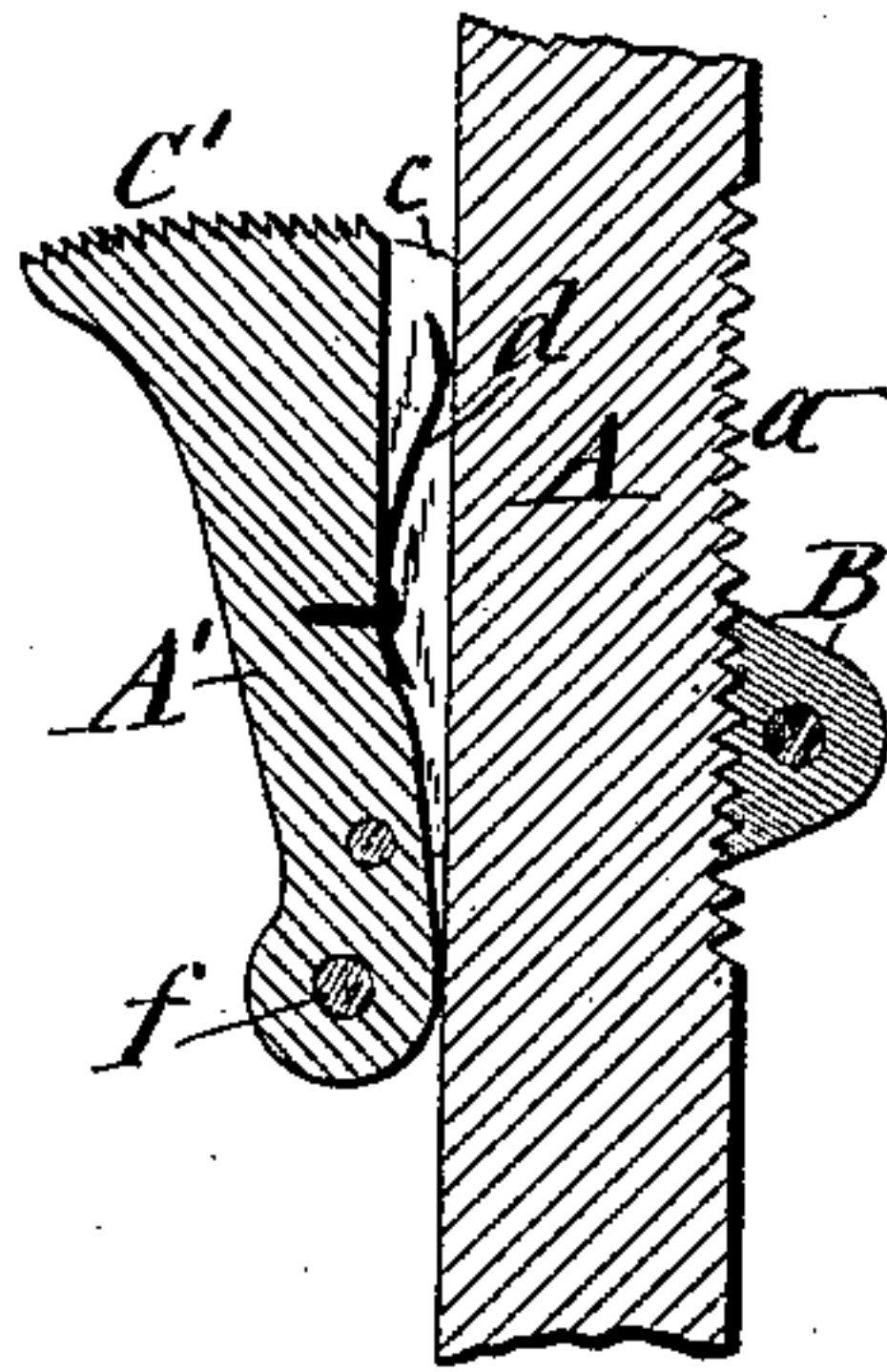


Fig. 5

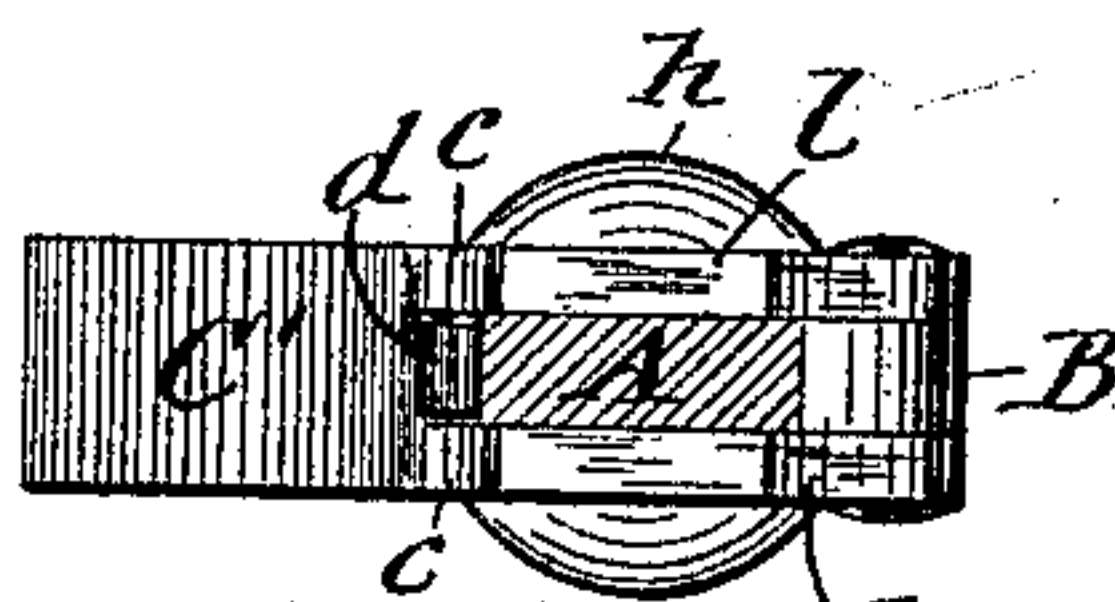


Fig. 3

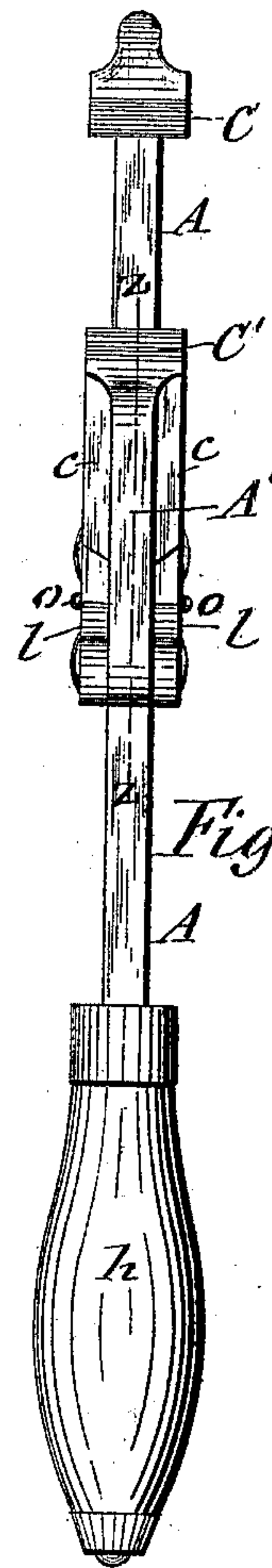


Fig. 2.

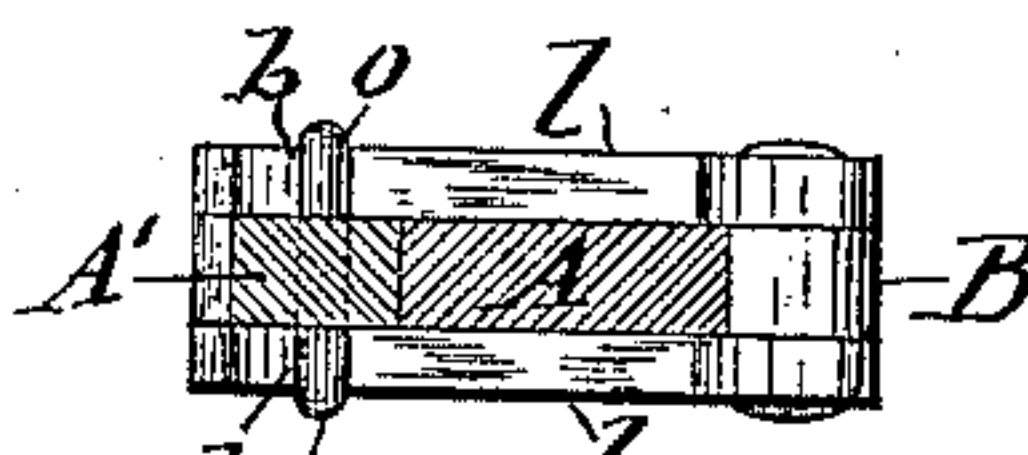


Fig. 4.

WITNESSES:

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# UNITED STATES PATENT OFFICE.

JULIAN A. GILES, OF OSWEGO, NEW YORK, ASSIGNOR OF THREE-FOURTHS  
TO C. C. PLACE AND E. A. VAN HORNE, BOTH OF SAME PLACE.

## PIPE-WRENCH.

SPECIFICATION forming part of Letters Patent No. 391,957, dated October 30, 1888.

Application filed June 11, 1888. Serial No. 276,679. (No model.)

*To all whom it may concern:*

Be it known that I, JULIAN A. GILES, of Oswego, in the county of Oswego, in the State of New York, have invented new and useful  
5 Improvements in Pipe-Wrenches, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to the class of pipe-  
10 wrenches in which the adjustable jaw is sustained on the main shank of the wrench by a serrated block riding on a serrated portion of said shank and connected to a shank formed on the adjustable jaw.

15 My present invention consists in an improved construction and combination of parts which render the wrench more efficient and convenient in its operation, as hereinafter more fully described, and specifically set forth in the claims.

In the accompanying drawings, Figures 1 and 2 are respectively side and front views of my improved pipe-wrench. Figs. 3 and 4 are transverse sections, respectively, on lines *x x*  
25 and *y y*, Fig. 1; and Fig. 5 is a longitudinal section on line *z z*, Fig. 2.

Similar letters of reference indicate corresponding parts.

A denotes the main shank of the wrench,  
30 having the jaw C fixed thereto or formed integral therewith. The back of said shank is serrated or provided with a series of teeth, as shown at *a* in Fig. 1 of the drawings. On this serrated portion of the back of the shank A  
35 rides a correspondingly-serrated block, B, and from this block, at opposite side of the afore-said shank, are extended the links *l l*, which I hinge to said block, as shown, and lie obliquely or inclined across the side of the shank,  
40 and are formed with eyes *e e* a short distance outward from the front of the shank, and also with shoulders *b b* above said eyes.

C' designates the adjustable jaw, which is formed with a short shank, A', the lower end  
45 of which is hinged to the eyes *e e* by a pin, *f*, passing through the latter and through the intervening end portion of the shank A'. The jaw C', with its shank A', is sustained in front of the shank A by means of stops or lugs *o o*,

projecting from opposite sides of the shank 5c  
A' and adapted to engage or rest against the shoulders *b b*.

Between the two shanks A A' is interposed the spring *d*, which is secured at one end to the shank A' and presses with its opposite end 55 against the front of the shank A, and in this manner crowds the shank A' from the shank A and causes the former to normally rest with its stops *o o* against the shoulders *b b*. The shank A' is also formed at opposite sides with 60 flanges *c c*, which embrace the sides of the main shank A, and thus aid in sustaining the short shank A' laterally, and at the same time to inclose the spring *d*, so as to protect the same and prevent the lateral displacement of 65 the free end thereof.

My invention possesses many advantages over prior devices of this class. I dispense with the thumb-screws and latches employed in some pipe-wrenches for adjusting the mov- 70 able jaw. I obtain a long bearing engaging a series of the notches on the shank of the wrench, and thus provide a secure hold on the said shank, and by the pivotal connection of the inclined links to the serrated block, rest- 75 ing against the back of the shank of the wrench above the connection of the links to the heel of the jaw, with the said heel resting directly against the front of the shank, the wrench, when operated on a pipe or rod and subjected to 8c strain, tends to tighten the hold of the serrated block on the notched portion of the shank. Besides this, the adjustment of the movable jaw to different-sized pipes or rods to be operated on requires no manipulation of thumb- 85 screws or latches or levers, but is effected in the simplest, most convenient, and expeditious manner by merely pressing said jaw toward the shank so as to release the stop *o* from the link *l*, and then sliding the said jaw up to 90 the pipe or rod to be gripped. The serrated block, becoming thereby loosened from the shank, is readily slipped up to obtain its requisite hold on the shank. The spring *d*, crowding the jaw from the shank and causing the 95 stop *o* to engage the link *l*, serves to retain the jaw in its adjusted position.

It will therefore be observed that my im-



proved pipe-wrench can be easily adjusted by one hand, and is very strong, efficient, and durable.

The shank A is provided with the usual handle, *h*, and the gripping-face of the jaws C C' are serrated and stand at such angles that in drawing the handle *h* in the direction in which the jaws stand said jaws become firmly gripped on the pipe, the jaw C' being crowded against the main shank A and supported thereby. To release the jaws from the pipe, it is only necessary to swing the wrench in opposite direction from that aforesaid. In this movement of the wrench the jaw C' moves from the shank A and swings from the pipe sufficiently to allow it to slide thereon and obtain a new hold for the next turn of the wrench.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In combination with the shank A, provided with the serrated back *a*, and with the fixed jaw C, the serrated block B, riding on said back, the links *l l*, hinged to said block, and the jaw C', sustained on the opposite end of said links, as set forth and shown.

2. In combination with the shank A, provided with the serrated back *a*, and with the

fixed jaw C, the serrated block B, riding on said back, the links *l l*, hinged to said block and formed at the front of the shank with the shoulder *b*, the jaw C', formed with the shank A' and pivoted at the end of said shank to the links, and the stop *o* on the shank A', adapted to engage the aforesaid shoulder, substantially as described and shown.

3. The improved pipe-wrench consisting of the shank A, provided with the serrated back *a*, and with the fixed jaw C, the serrated block B, riding on said back, the links *l l*, hinged to said block and provided with the shoulder *b*, the jaw C', formed with the shank A', hinged to the links *l l* and provided with the stops *o o*, and with flanges *c c*, embracing the sides of the shank A, and the spring *d*, interposed between the two shanks A A' and inclosed between the flanges *c c*, all constructed and combined substantially in the manner specified and shown.

In testimony whereof I have hereunto signed my name, in the presence of two witnesses, at Oswego, in the county of Oswego, in the State of New York, this 7th day of June, 1888.

JULIAN A. GILES. [L. s.]

Witnesses:

A. N. RADCLIFFE,  
ERNEST W. RICE.