

(No Model.)

P. W. WHITTIER.

MACHINE FOR WHITENING AND SOFTENING LEATHER.

No. 451,096.

Patented Apr. 28, 1891.

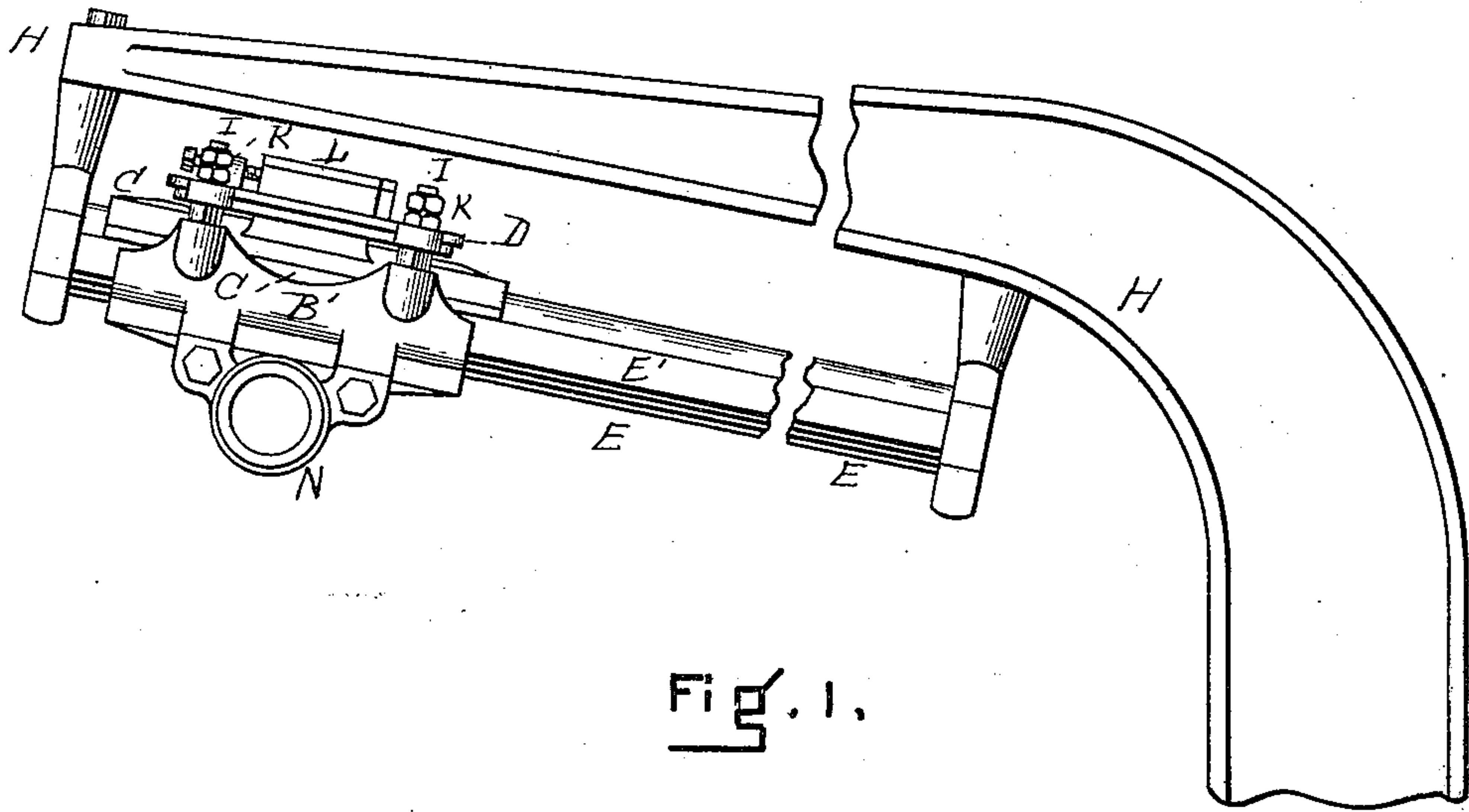


Fig. 1.

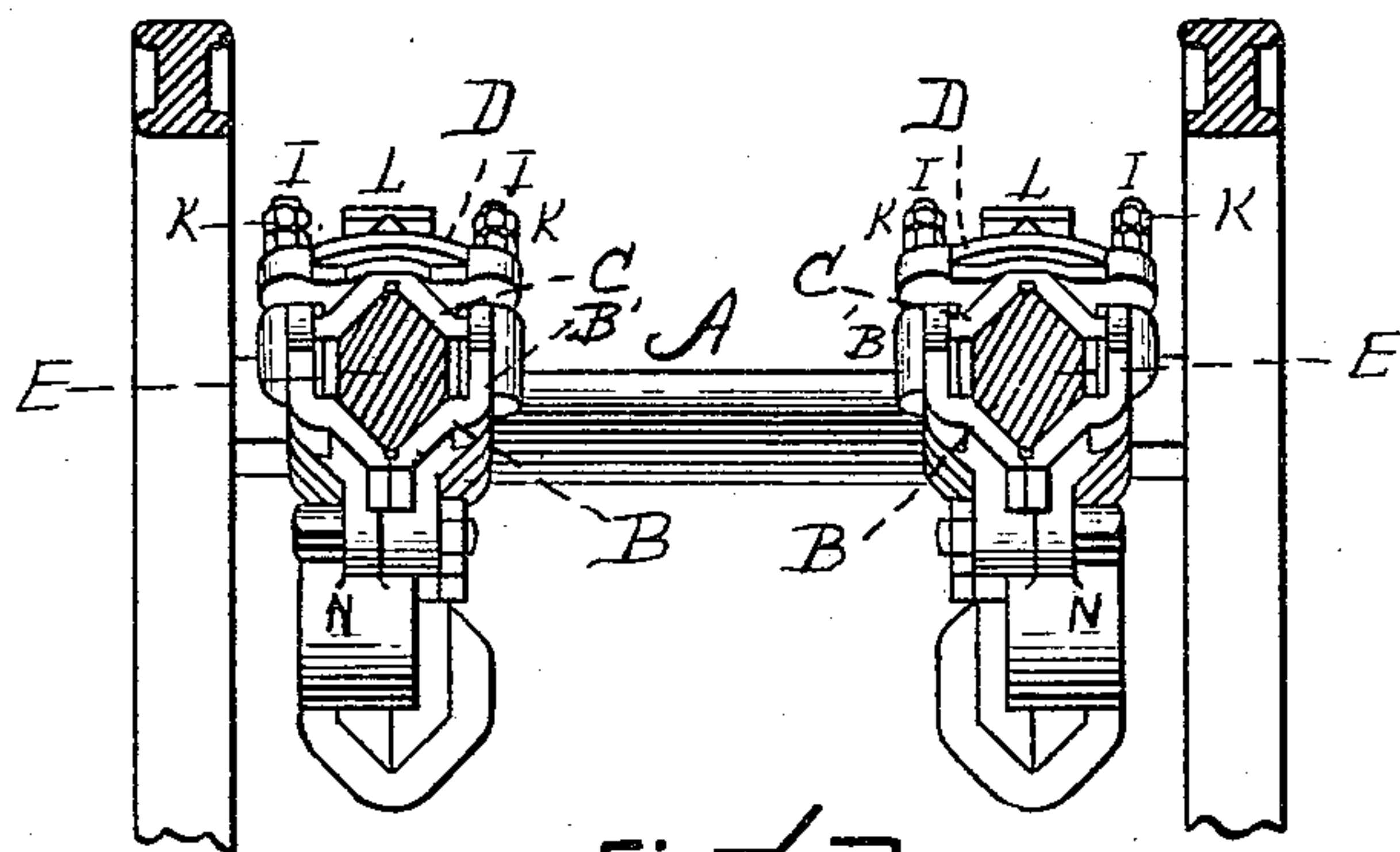
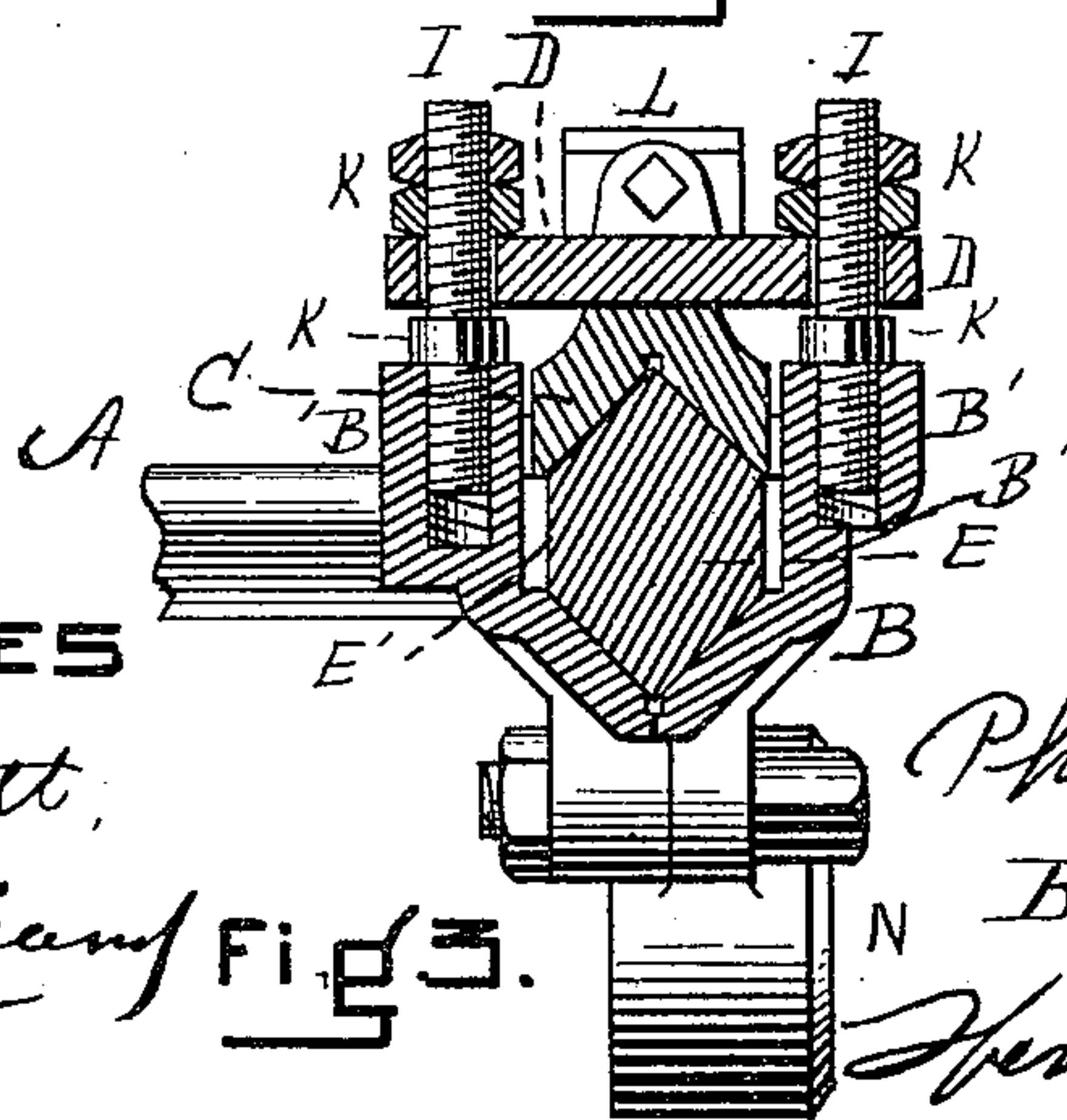


Fig. 2.



WITNESSES

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Fig. 3.

INVENTOR

Phineas W. Whittier

By his Atty.

Henry Williams

# UNITED STATES PATENT OFFICE.

PHINEAS W. WHITTIER, OF NORTH ANDOVER, ASSIGNOR TO ANNIE H. PLUMMER, OF AUBURNDALE, MASSACHUSETTS.

## MACHINE FOR WHITENING AND SOFTENING LEATHER.

SPECIFICATION forming part of Letters Patent No. 451,096, dated April 28, 1891.

Application filed December 29, 1890. Serial No. 376,014. (No model.)

*To all whom it may concern:*

Be it known that I, PHINEAS W. WHITTIER, of North Andover, in the county of Essex and State of Massachusetts, have invented a new and useful Improvement in Machines for Whitening and Buffing Leather, of which the following is a specification.

This improvement relates to the arrangement and construction of the cross-head and guide-bars of a machine for whitening leather. As the cross-head and guide-bars are ordinarily constructed the former is tubular and the latter are round. The result is that the guide-bars soon wear and become loose in the cross-head, which, however adjustable it may be, cannot then fit the guide-bars and prevent their rattling. In this improvement the guide-bars are made hexagonal in cross-section and play in adjustable angle-shaped boxes in the cross-head, all as below described, with the effect of allowing ample opportunity for taking up the wear with no danger of the guide-bars becoming loose or rattling.

In the accompanying drawings, in which similar letters of reference indicate corresponding parts, Figure 1 is a side view of the cross-head and guide-bars of a machine for whitening and buffing leather embodying my improvement. Fig. 2 is a front view of the cross-head with the guide-bars in cross vertical section. Fig. 3 is an enlarged cross vertical section of a portion of the cross-head and one of the guide-bars therein.

The cross-head consists of two parts connected by the connecting-bar A. Each of these parts comprises a hanger B, adjustable box C, and adjustable plate D, constructed as shown and below described. Between the boxes C and the hangers B lie the guide-bars E, on which the cross-head slides. These guide-bars are hexagonal in cross-section, are

stationary, and are supported by the frame H in the ordinary manner. The two lower surfaces of the hexagonal guide-bar E fit against the corresponding inner surfaces of the angle-shaped beds of the hangers B, while the two upper surfaces of the guide-bars fit into the inner surfaces of the angle-shaped boxes C. The plates D rest on the boxes C and are secured to the hangers B by means of bolts I, adjusted by nuts K, said bolts extending through holes in the plates D into threaded holes in the parallel vertical sides B' of the hangers.

It will readily be seen that as the hexagonal guide-bars E wear they only require the readjustment of the nuts K to prevent any looseness or rattling, and that this readjustment can continue until the entire distance or width of the parallel vertical sides E' of the bars are entirely taken up. It is evident, therefore, that the bars will wear a very long time and that during all that time there will be no looseness or rattling.

The boxes C are provided with oiling devices L, which project through the plates D, and the hangers B are provided with the ordinary bearings N for the shaft of the driving-pulley.

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

In a machine for whitening and buffing leather, the combination, with the cross-head comprising the angle-shaped hangers B B' and the angle-shaped boxes C, adjustably connected, as shown, of the hexagonal guide-bars E between said hangers and boxes and fitting therein, substantially as set forth.

PHINEAS W. WHITTIER.

Witnesses:

HENRY W. WILLIAMS,  
J. M. HARTNETT.