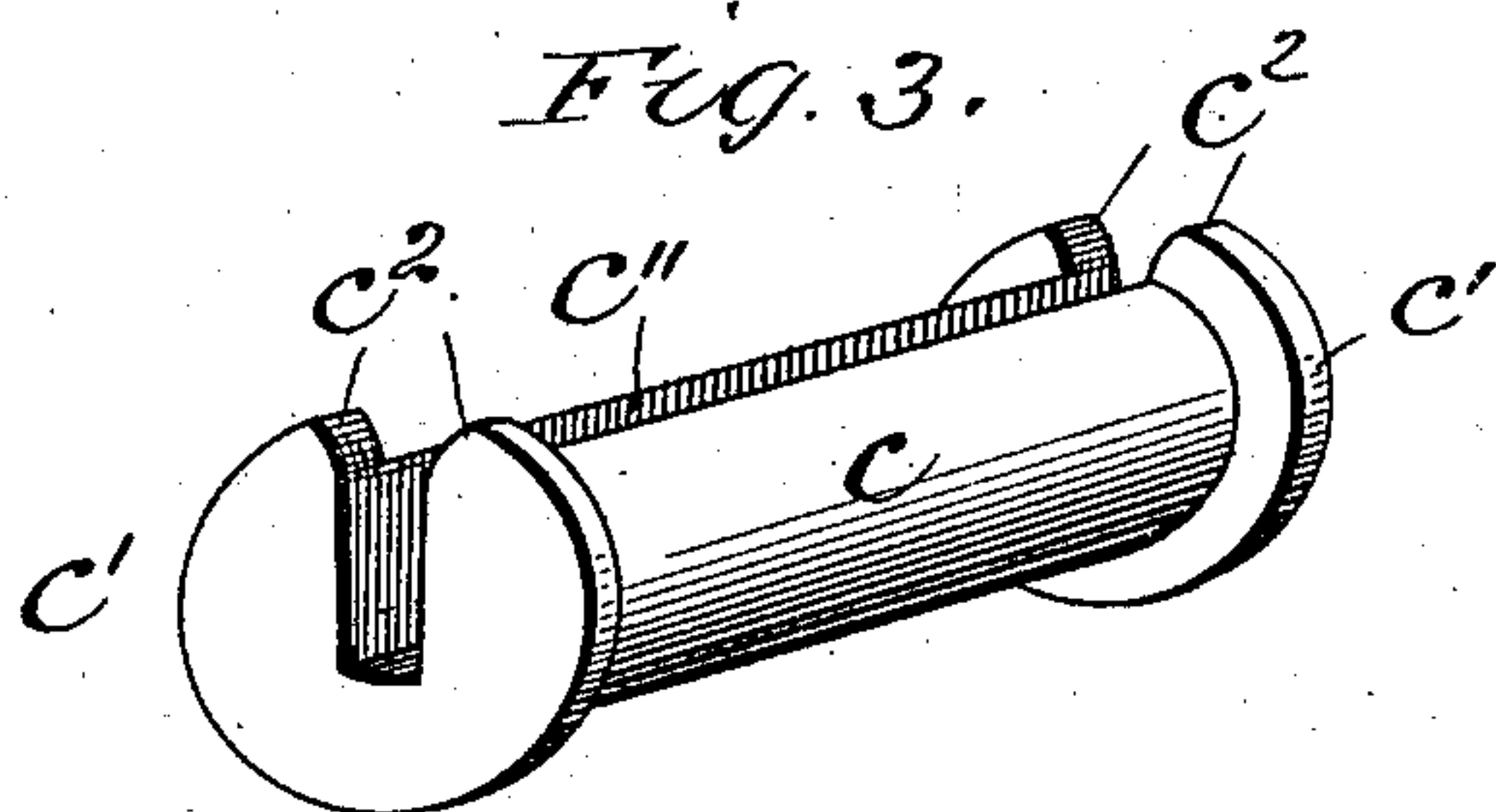
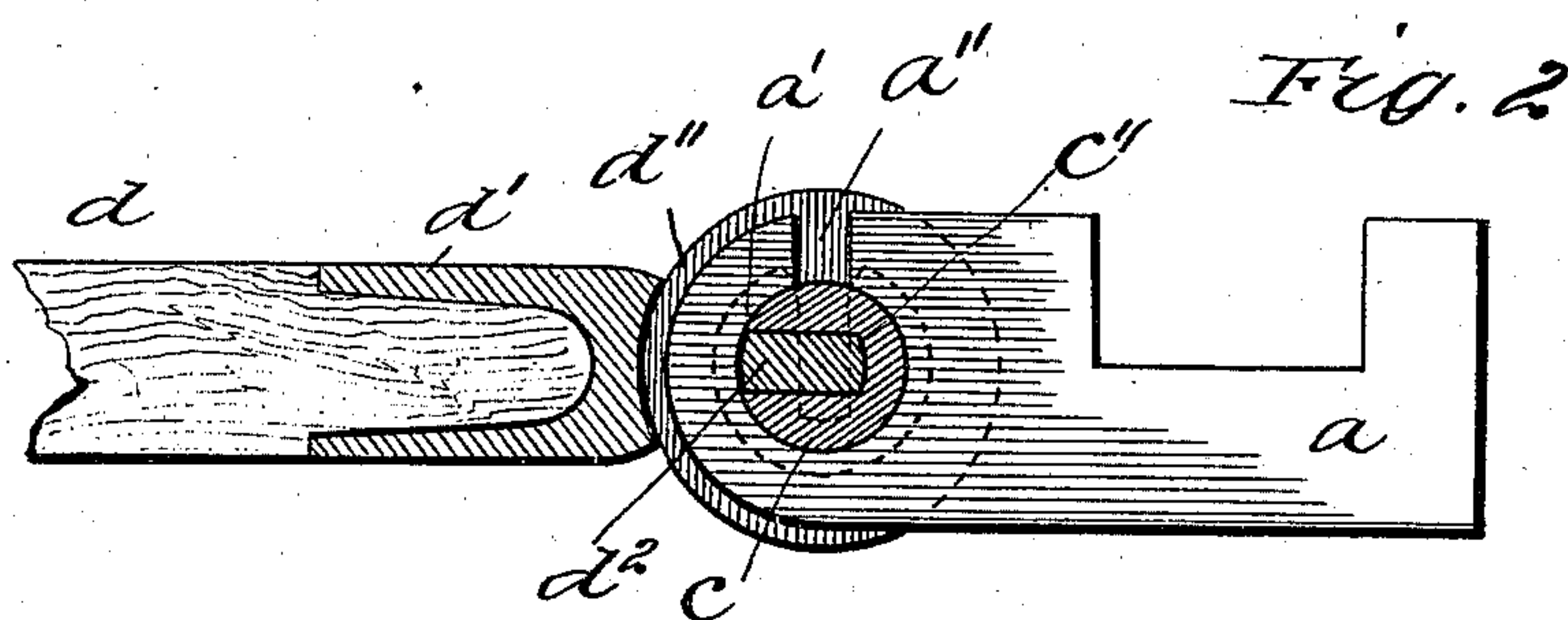
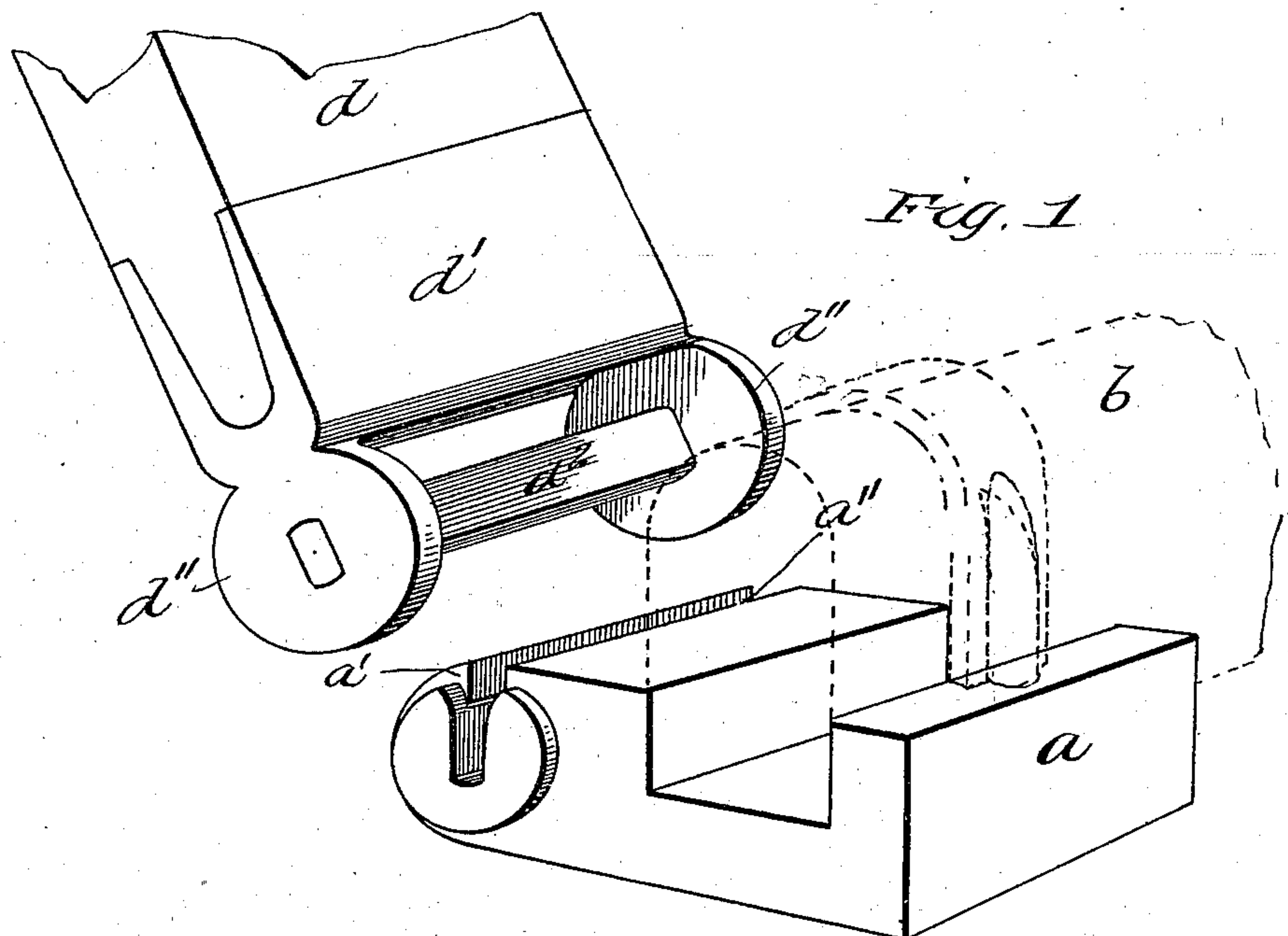


(No Model.)

E. J. MERRY.
THILL COUPLING.

No. 503,910.

Patented Aug. 22, 1893.



Witnesses
Chas. M. Muzzey
Parke A. McBride

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UNITED STATES PATENT OFFICE.

ELWIN J. MERRY, OF MAGOG, CANADA, ASSIGNOR OF ONE-HALF TO HORACE RALPH MERRY.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 503,910, dated August 22, 1893.

Application filed April 11, 1893. Serial No. 469,923. (No model.)

To all whom it may concern:

Be it known that I, ELWIN JAMES MERRY, a subject of the Queen of Great Britain, residing at Magog, in the county of Stanstead, Province of Quebec, Canada, have invented certain new and useful Improvements in Thill-Couplings, of which the following is a specification, reference being had therein to the accompanying drawings, in which—

10 Figure 1 is a perspective view of the parts of my device detached, the axle and clip being shown in dotted lines, and Fig. 2 a transverse section of the parts coupled. Fig. 3 is a perspective view of the roller.

15 This invention is designed to provide an improved device for attaching thill-irons to vehicle-axles in such a manner that the shafts may be readily detached when desired and will be prevented from becoming accidentally detached, as more fully hereinafter appears.

20 In the drawings, *a* designates a plate or block secured to the front axle *b* by means of an ordinary clip, the plate being provided with a groove for the reception of the axle. 25 On the front end of the plate is formed a horizontal open-ended tube or eye *a'* which extends parallel with the axle and is provided with a slot *a''* along its entire upper side. Journaled nicely in this tube *a'* is a 30 roller *c* whose ends extend slightly beyond the ends of the tube and are each provided with a radial flange *c'*, adapted to bear against the ends of the tube and prevent the roller being displaced. This roller is provided with a longitudinal groove *c''* extending its full length and adapted to register with the slot in the tube, as shown in Fig. 1. The flanges *c'* *c'* do not extend across the groove *c''* but terminate on opposite sides of it, their ends *c²* being 40 preferably beveled radially for a purpose presently described. The shaft *d* has secured to it the socketed iron *d'* which is provided with the ears *d''*, adapted to embrace the tube and its roller when coupled, said ears being connected by a rectangular bar *d²*. 45

In coupling, it is simply necessary to bring the roller-slots in alignment with the tube-slots, then raise the shafts and insert the bars of the shaft-irons into the slots and then turn

the shafts down to a horizontal position, which 50 will turn the roller so as to bring its slot out of alignment with the slot in the tube and thus lock the shafts in place. Should the groove in the roller not be in exact alignment with the tube-slot the bar *d²* will strike the 55 beveled edges *c²* of the flanges and rotate the roller sufficiently to bring its slot in alignment with the tube slot and permit the bar to pass easily in.

It will be observed that with this device accidental un-coupling and all rattling will be avoided, these advantages being the great desiderata in all devices of this kind. 60

If desired, the rectangular bar may be secured to the axle and the rotatable block to 65 the shafts instead of as described and shown. The flanged roller *c* may be placed in position in the eye in any suitable manner; for instance, one of the flanges may be made separable so that it may be secured to the end of 70 the roller after the same is inserted in the eye, or one of the flanges may be formed or struck up on the roller after it is inserted in the eye.

Having thus fully described my invention, what I claim is— 75

1. The combination of a plate adapted to be secured to an axle and carry an open-ended slotted tube or eye, a longitudinally-grooved roller journaled in said tube and provided with radial flanges at its ends, said flanges 80 bearing against the respective ends of the tube or eye and a thill iron carrying a pair of ears and a rectangular connecting bar, substantially as described.

2. The combination of an eye slotted along 85 its upper side, a longitudinally-grooved roller journaled in said tube and provided with flanges *c'* at its ends, adapted to bear against the ends of the eye, said flanges being beveled away from the groove in the roller, as at 90 *c²*, thereby forming a mouth leading thereto, substantially as described.

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

ELWIN J. MERRY.

Witnesses:

D. CARLOS REMICK,
JOHN DAVIES.