

(No Model.)

A. A. DAILEY.
THILL COUPLING.

No. 312,097.

Patented Feb. 10, 1885.

Fig. 3.

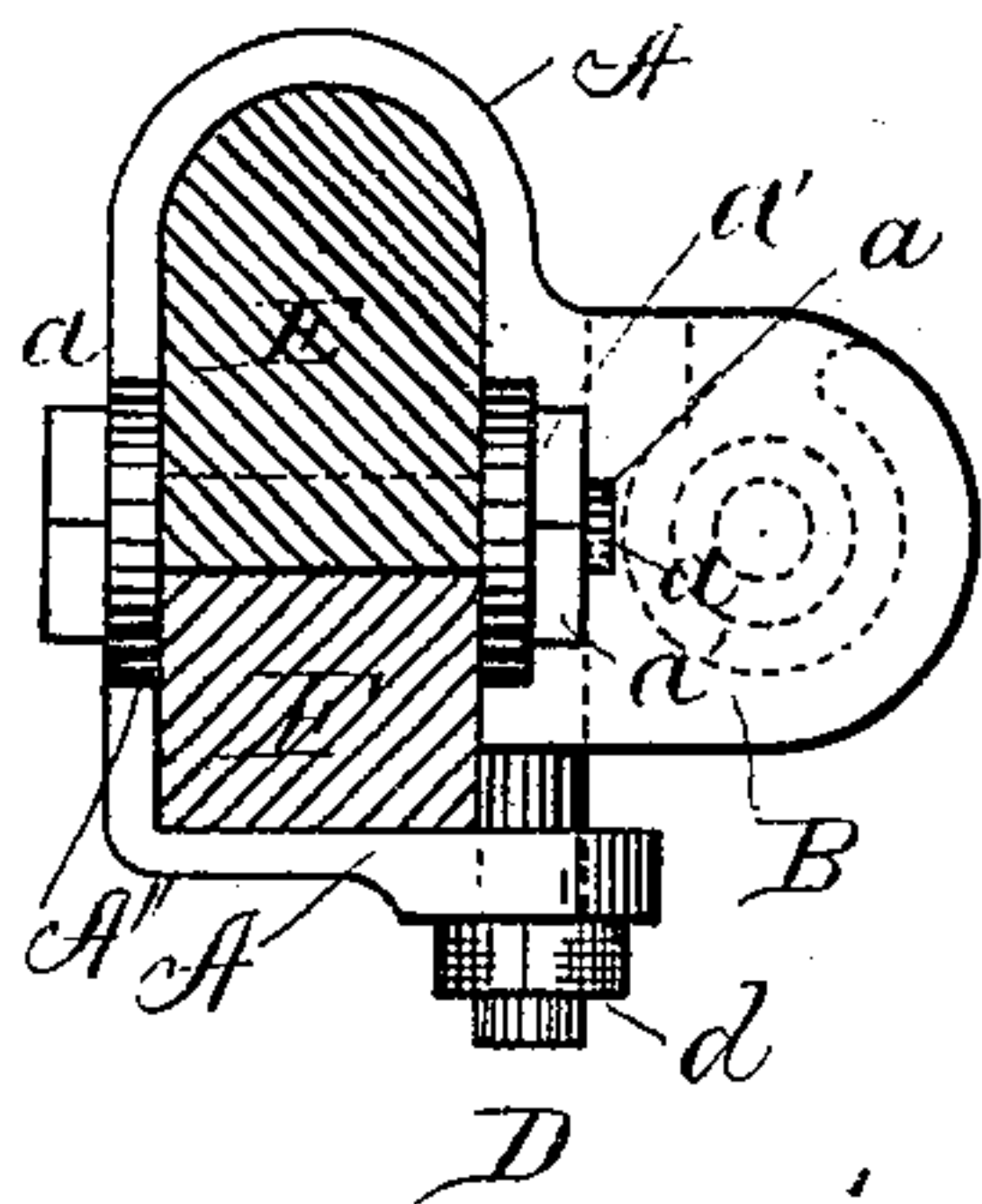


Fig. 1.

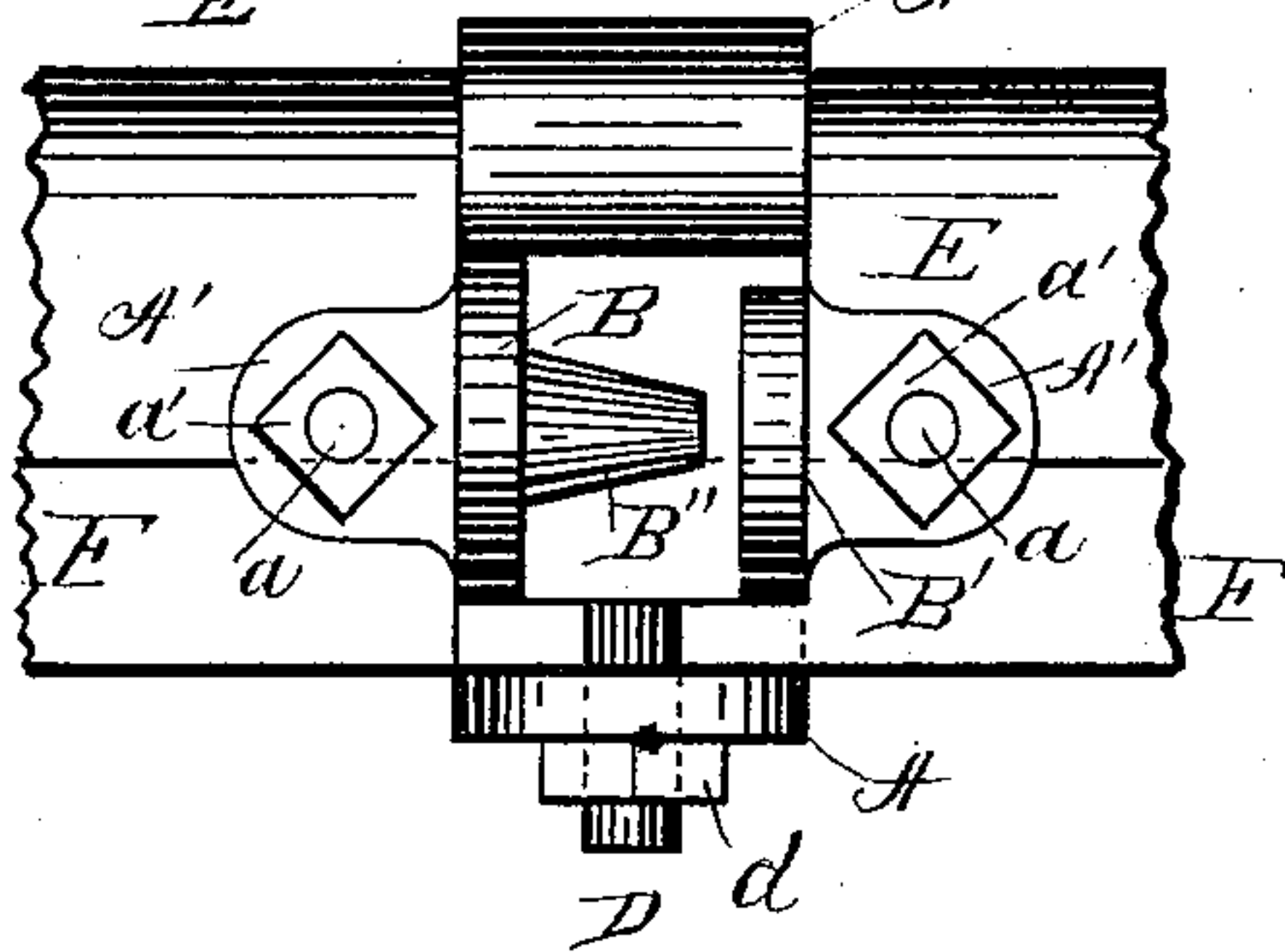


Fig. 2.

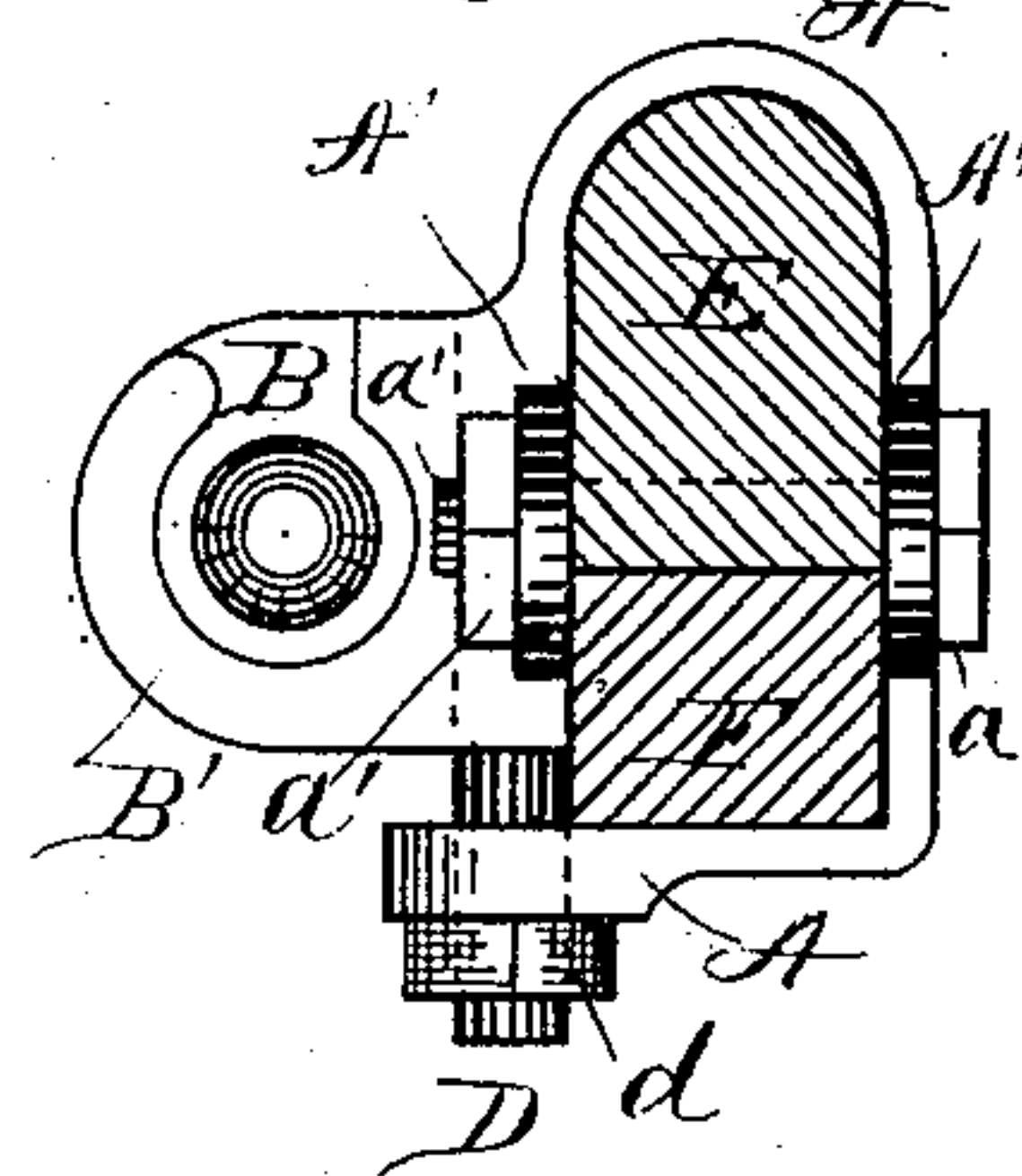


Fig. 12.

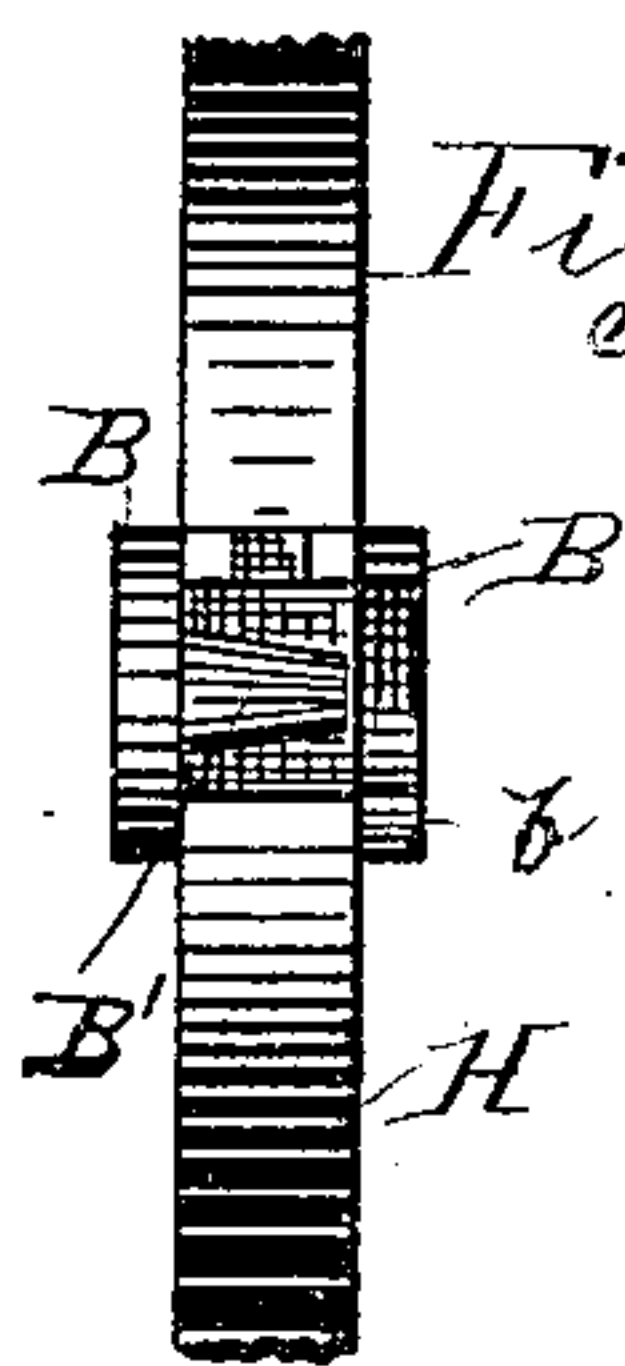


Fig. 4.

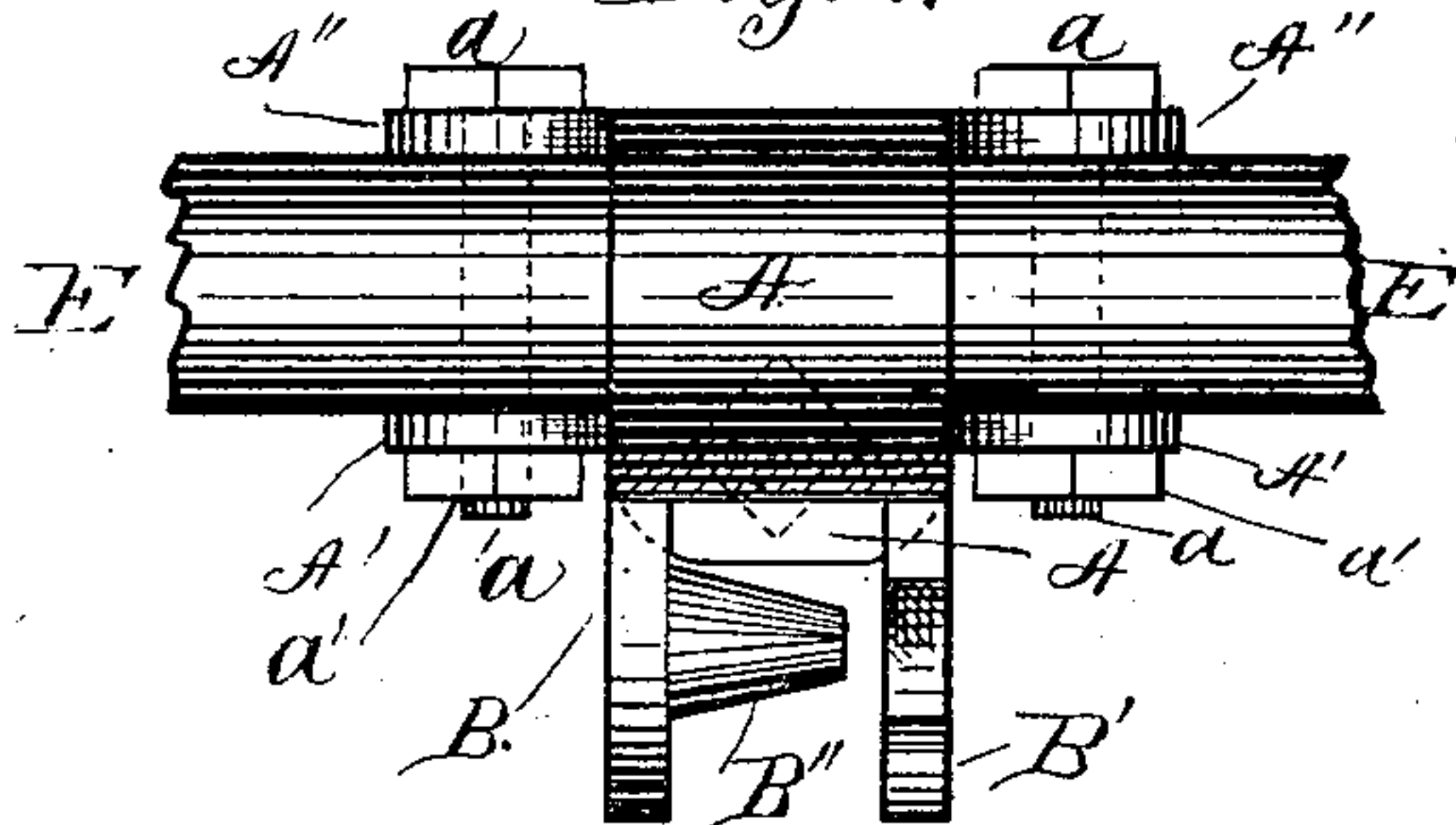


Fig. 11.

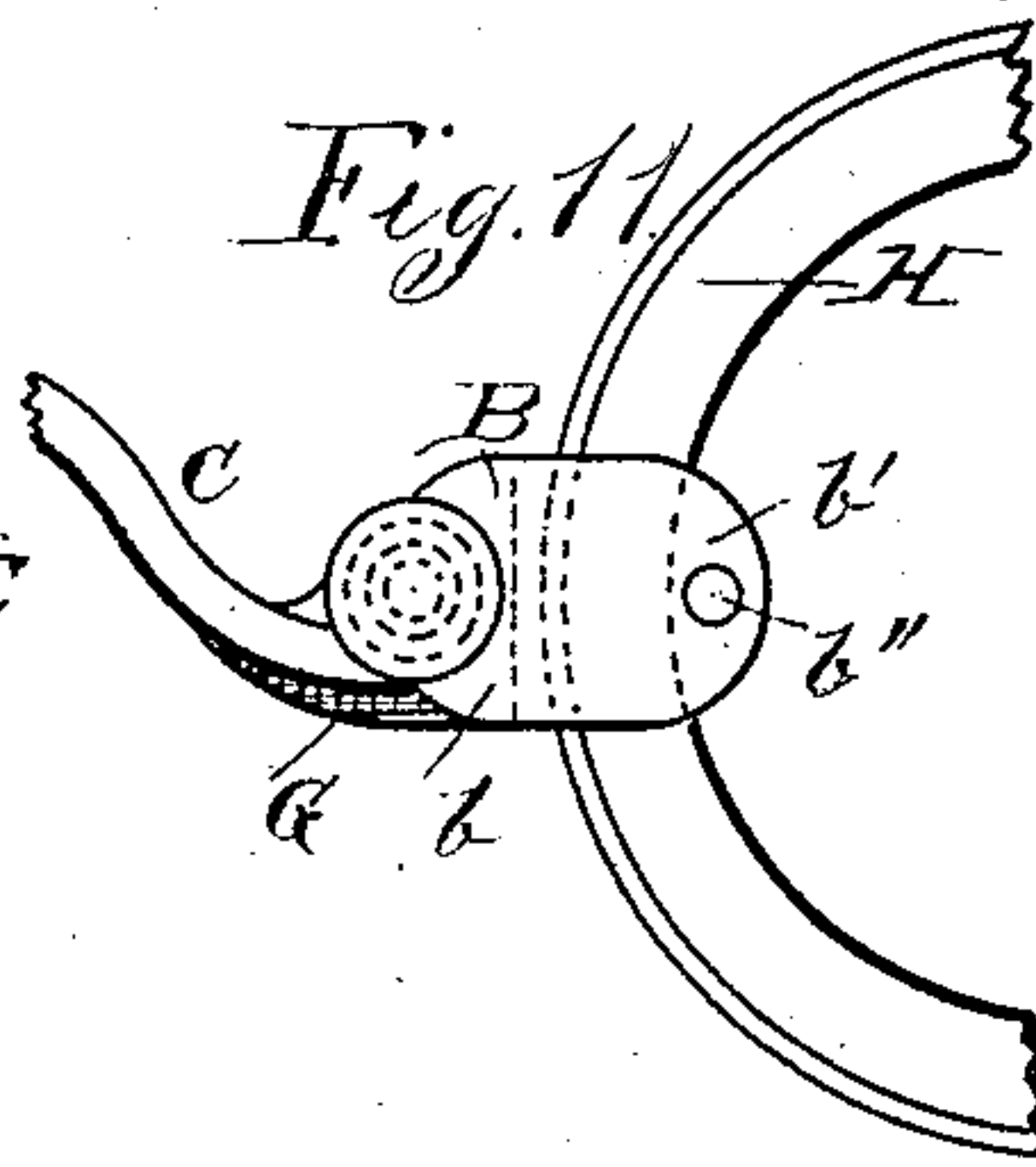


Fig. 9.

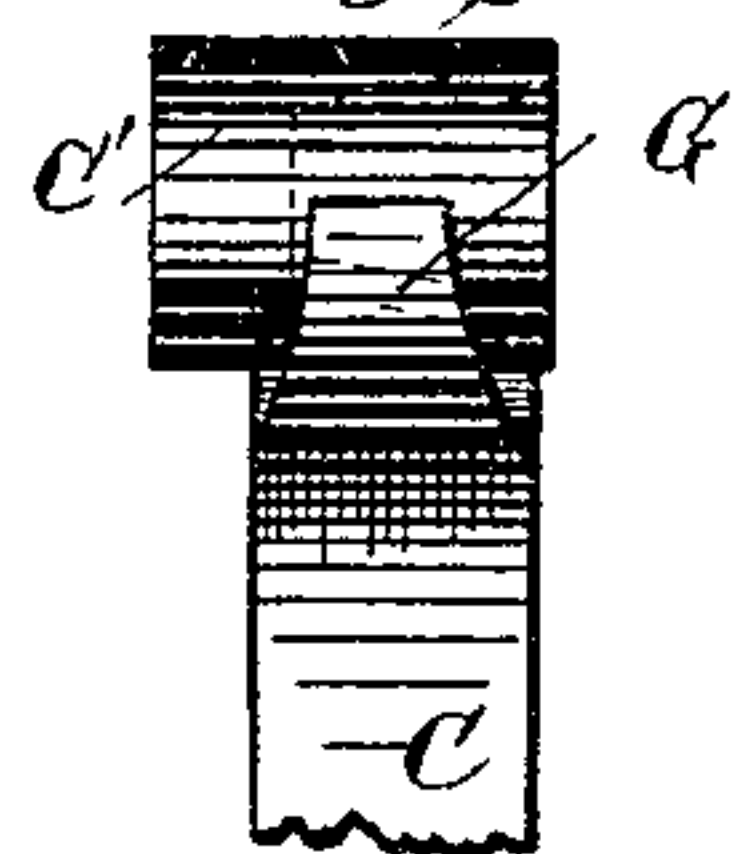


Fig. 8.

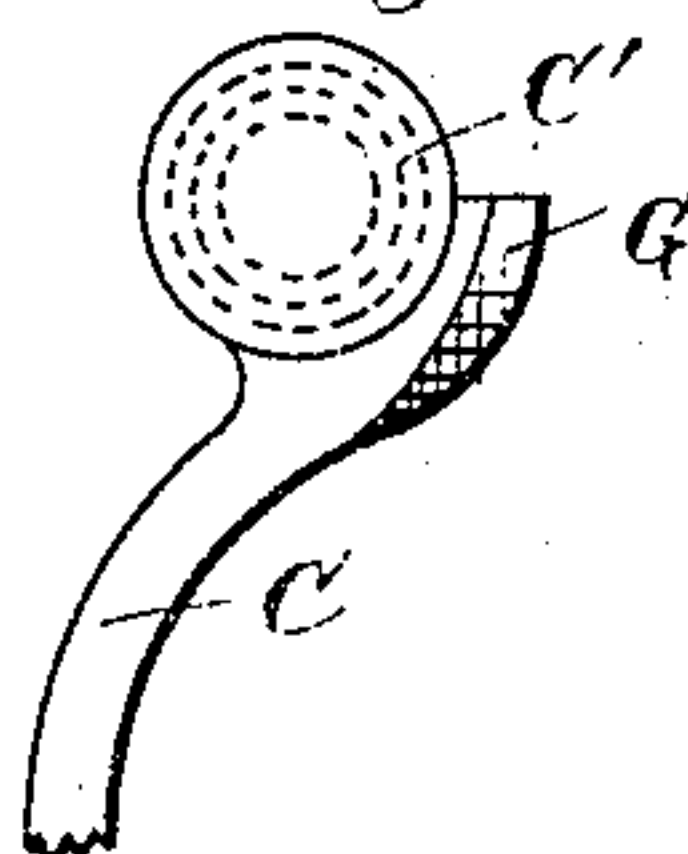


Fig. 5.

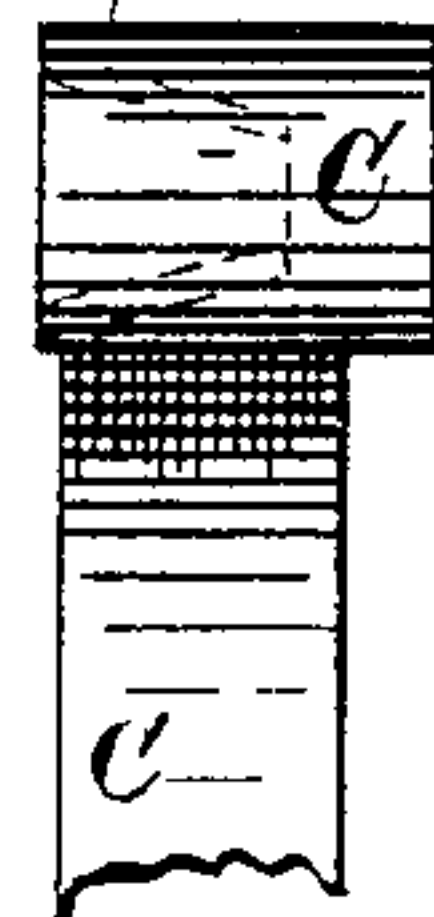


Fig. 6.

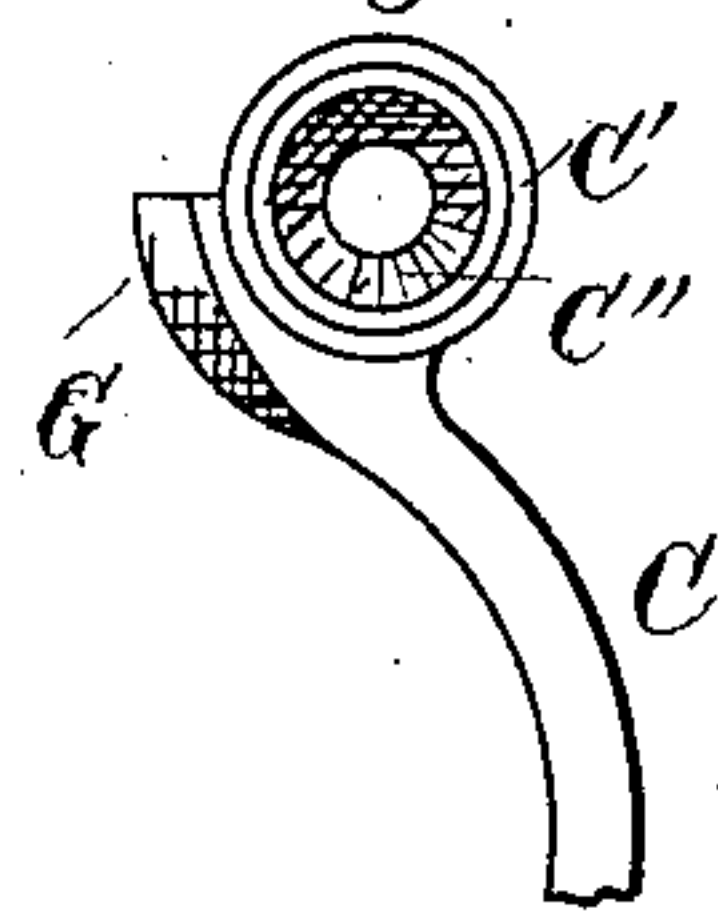


Fig. 7.

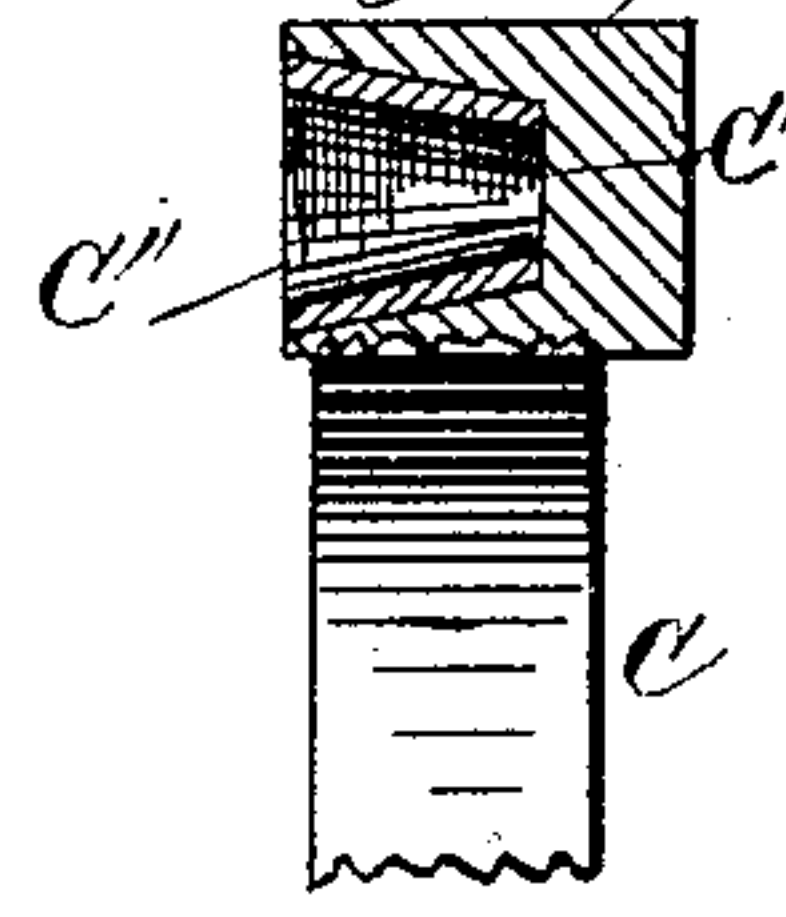
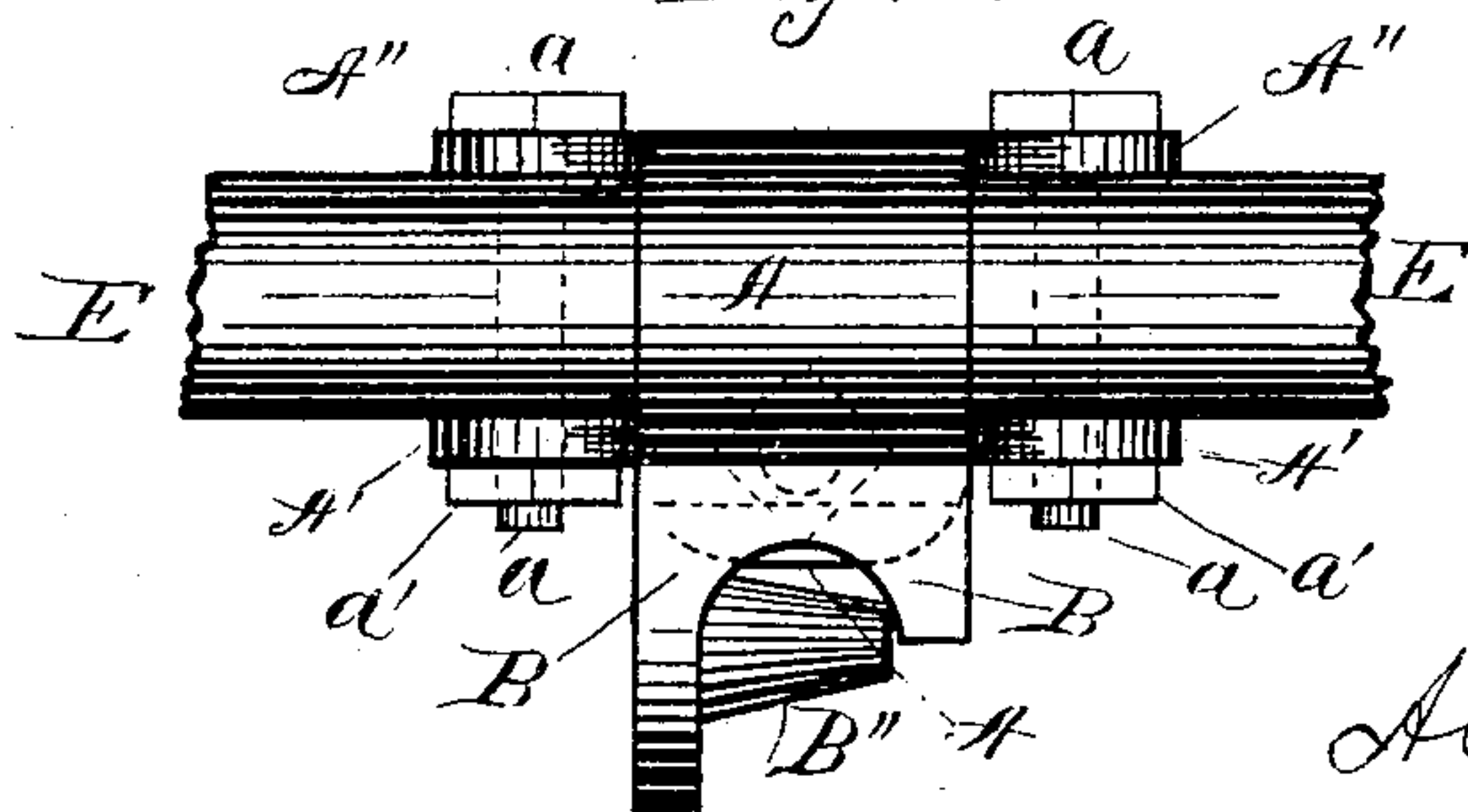


Fig. 10.



Witnesses.
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UNITED STATES PATENT OFFICE.

ALBERT A. DAILEY, OF WILSON, NEW YORK.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 312,097, dated February 10, 1885.

Application filed May 1, 1884. (No model.)

To all whom it may concern:

Be it known that I, ALBERT A. DAILEY, a citizen of the United States, residing at Wilson, in the county of Niagara and State of New York, have invented certain new and useful Improvements in Thill-Couplers; and I do hereby 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.

The object of this improvement is a thill-coupler adapted to both light and heavy draft vehicles, and which may be easily and securely attached to a buggy or wagon, and in a way to prevent jarring or rattling of the parts while in use. These results are attained by the mechanism illustrated in the drawings herewith filed as part hereof, in which the same letters of reference denote the same parts.

Figure 1 is a front elevation showing my improvement applied to a section of an axle-tree. Fig. 2 is a side elevation of the same. Fig. 3 is a view of the same as seen from the side opposite to that shown in Fig. 2. Fig. 4 is a top view, and Figs. 5, 6, 7, 8, and 9 are various views of the thill-iron. Fig. 10 is a top view representing a modification of the lug to which the thill-iron is attached. Figs. 11 and 12 are front and side elevations showing the modified construction illustrated in Fig. 10 as applied to sleigh-runners.

Referring to said drawings, A is a clip surrounding the axle E F, and having a perforated projection on its lower side, which is brought over a screw-threaded extension, D, and is secured in place by the nut *d*.

A' A'' are perforated lateral extensions for securing the clip to the axle by means of transverse bolts *a* and nuts *a'*. These lateral extensions need only be used with heavy wagons, as the extension D, bolted to the lower projecting side of the clip, as above described, is sufficiently strong for ordinary light-draft vehicles. The clip A is provided with the solid lug B and lug B', having a circular slot opening at the top of said lug, as shown.

B'' is a conical lateral projection or pivot, formed as part of the lug B, having its longitudinal center in a line with the center of the circular slot in the lug B'.

C is the thill-iron, having the cylindrical head *c*, provided with the conically-recessed pivot-socket C', said socket being sufficiently larger than the pivot or projection B'' to receive a conical-shaped washer, C'', which is inserted therein before the thills are connected with the coupling. Said washer C'' may be made of any desired material. The cylindrical thill-iron head *c* is made of a size to fit in the circular slot in the lug B', and is sufficiently long to rest partially in said slot when the thill is coupled. To couple the same, the thills are raised nearly to a vertical position and the thill-head slipped on the pivot B'', the conical washer having first been inserted in the socket C'. The thills are then lowered and held in position by the thill-iron C engaging with the inside of lug B', the conical washer preventing rattling or jarring.

G is a shoulder or extension on the under side of the thill-head, which prevents the shafts from falling violently to the ground when released from the harness.

In the modified construction of my invention shown the slotted lug B' is dispensed with, and said lug is formed as a semicircular bearing, B *b*, as shown in Figs. 10, 11, and 12. When the thill-iron head is slipped on the pivot B'' and the shafts lowered, the shoulder G engages with the inner side of the lower portion, *b*, of the semicircular bearing, and thus holds the thill in place.

To apply my coupling to sleigh-runners, the clip may be provided with rear extensions, *b'*, adapted to fit over the runner, to which it is secured by a bolt passing through perforations *b''*.

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

1. In a thill-coupling, the clip A, having the solid lug B, provided with the conical-shaped lateral pivot B'', and the circular slotted lug B', in combination with the thill-iron C, having the cylindrical head *c*, provided with the conical recess C', and the conical washer C'', substantially as shown and described.

2. In a thill-coupling, the clip A, having the lug B, provided with the conical-shaped lateral pivot B'', and the lug B', in combination with the thill-iron C, provided with the shoul-

der G, and having the cylindrical head *c*, provided with the conical recess *C'*, and the conical washer *C''*, all arranged substantially as shown and described.

- 5 3. In a thill-coupling, the clip A, surrounding the axle, and having the extension D, lateral extensions A' A'', and bolts *a*, and the solid lug B, provided with the conical-shaped lateral pivot B'' and the circular slotted lug
10 B', in combination with the thill-iron C, hav-

ing the cylindrical head *c*, provided with the conical recess *C'*, and the conical washer *C''*, all arranged substantially as shown and described.

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

ALBERT A. DAILEY.

Witnesses:

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