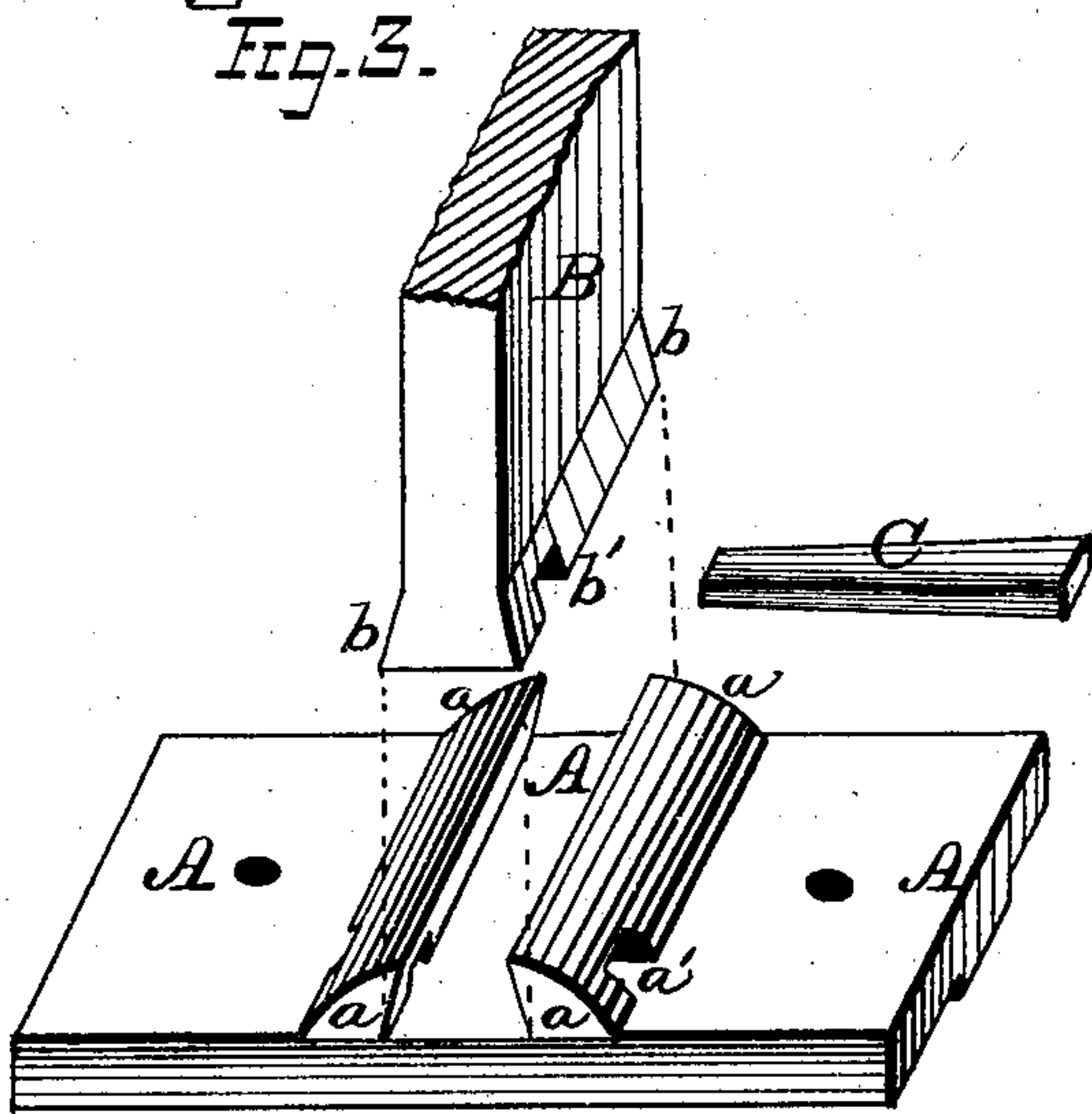
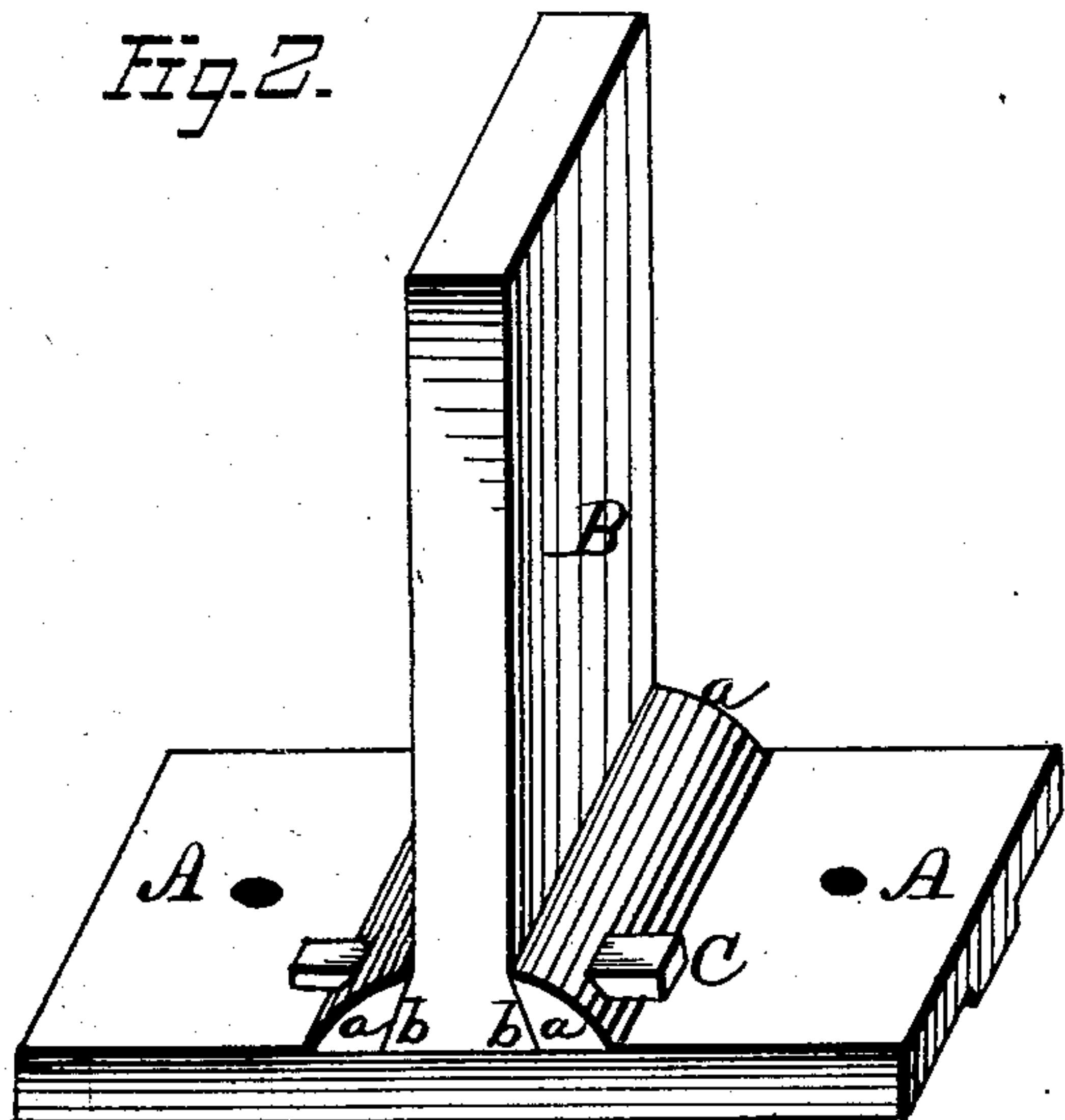
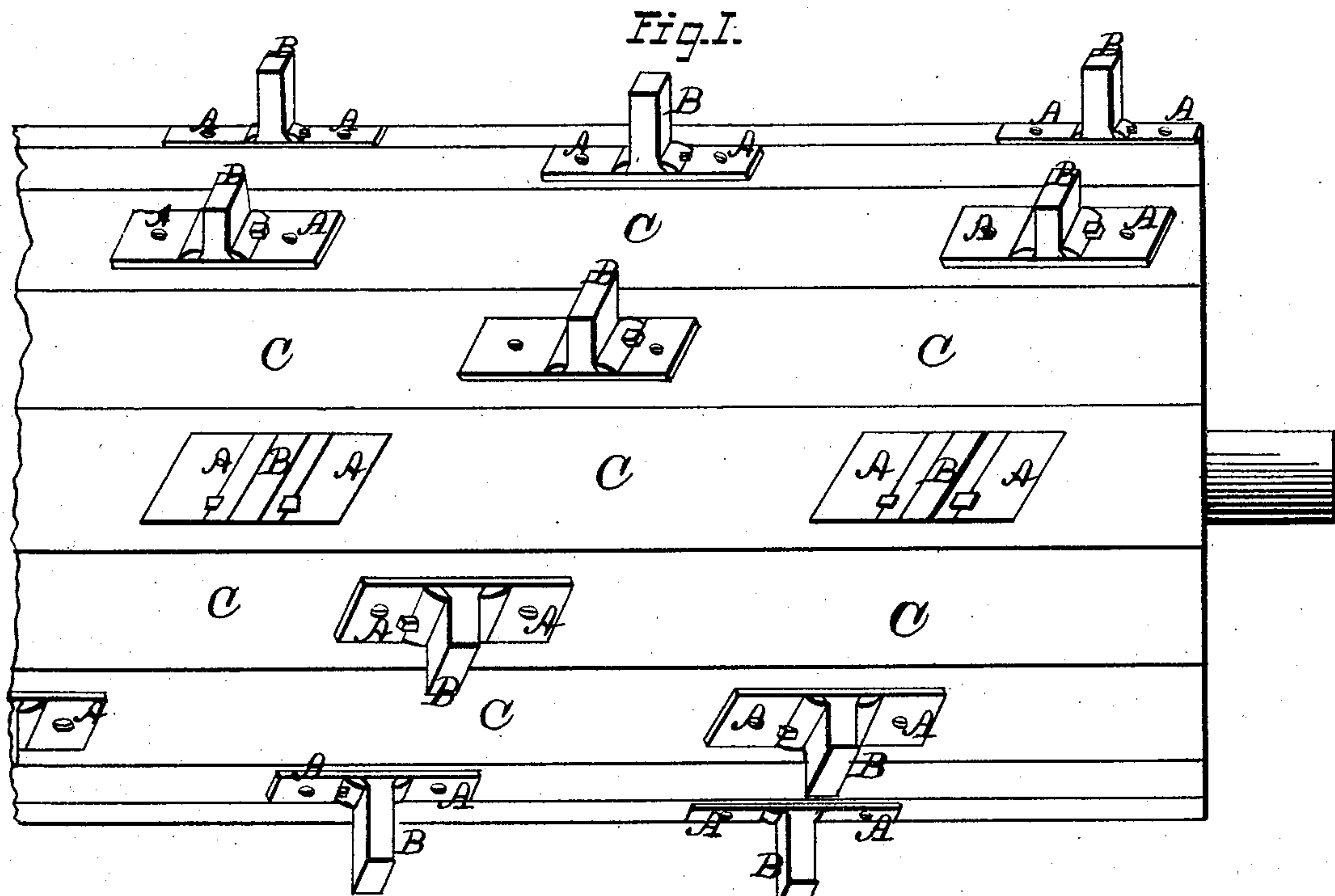


R. SOLLIDAY.
Ore-Washers.

No. 145,455.

Patented Dec. 9, 1873.



WITNESSES.

Gas. & Hutchinson.
John P. Young

INVENTOR.

Reuben Solliday, by
Prindle and Deane, his Attys

UNITED STATES PATENT OFFICE.

REUBEN SOLLIDAY, OF ALLENTOWN, PENNSYLVANIA.

IMPROVEMENT IN ORE-WASHERS.

Specification forming part of Letters Patent No. **145,455**, dated December 9, 1873; application filed October 22, 1873.

To all whom it may concern:

Be it known that I, REUBEN SOLLIDAY, of Allentown, in the county of Lehigh and in the State of Pennsylvania, have invented certain new and useful Improvements in Ore-Washers; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 is a plan view of a washing-cylinder having attached thereto my improved beater. Fig. 2 is an enlarged perspective view of said device detached from said cylinder; and Fig. 3 is a like view of the same, showing the fixed and removable parts separated.

Letters of like name and kind refer to like parts in each of the figures.

My invention is an improvement upon a similar device for which Letters Patent, No. 138,948, were granted to me upon the 13th day of May, 1873; and it consists in the means employed for locking together the blade and base of the beater, substantially as and for the purpose hereinafter specified.

In the annexed drawing, A represents the base, and B the blade, of the beater, which, as combined, have the same general exterior form of those commonly used. In order that the parts may be constructed separately and then easily and firmly united, the blade B is provided upon each side, at its lower end, with an angular enlargement, *b*, which, in connection with the opposite enlargement, forms of said end a dovetail tenon. The base A is provided upon its upper side with two parallel cleats, *a*, between which is formed a mortise or groove, *A'*, that corresponds in size and shape to the tenoned end of the blade, and receives and contains the same when said parts are combined, which operation is performed by sliding said blade edgewise into said mortise. An opening, *a'*, (having, preferably, a rectangular

shape,) extending transversely through the cleats *a* just above the surface of the plate A, coincides with a corresponding notch, *b'*, formed in the lower end of the blade B, and receives a key, C, which, being closely fitted to said opening and notch, securely locks said blade in position within the groove *A'*. As thus constructed, the base is secured in position upon a cylinder, D, which is journaled within a suitable semicircular trough that has such dimensions, transversely, as to leave a space of from two and one-half to three inches between the ends of the beater-blades and its walls, and, by means of suitable mechanism, is caused to rotate within said trough. The ore to be washed is now fed into one end of the trough and a stream of water caused to flow into the same, when, by the action of the beaters, said ore and water are so thoroughly agitated as to remove from the former all adhering soil. The angle occupied by the beater-blades, together with the spiral form in which the beaters are arranged upon or around the cylinder, causes the ore and water to be moved from the end of the trough at which they are supplied to the opposite end of said trough, where said articles are discharged through a suitable opening.

Having thus fully set forth the nature and merits of my invention, what I claim as new is—

The means employed for locking the blades B in position within the groove *A'* of the base A, consisting of the key C, fitted to or within the openings *a'* and notch *b'*, substantially as specified.

In testimony that I claim the foregoing I have hereunto set my hand this 9th day of May, 1873.

REUBEN SOLLIDAY.

Witnesses:

GEO. S. PRINDLE,
EDM. F. BROWN.