

(No Model.)

J. R. JOHNSON.

THILL COUPLING.

No. 372,224.

Patented Oct. 25, 1887.

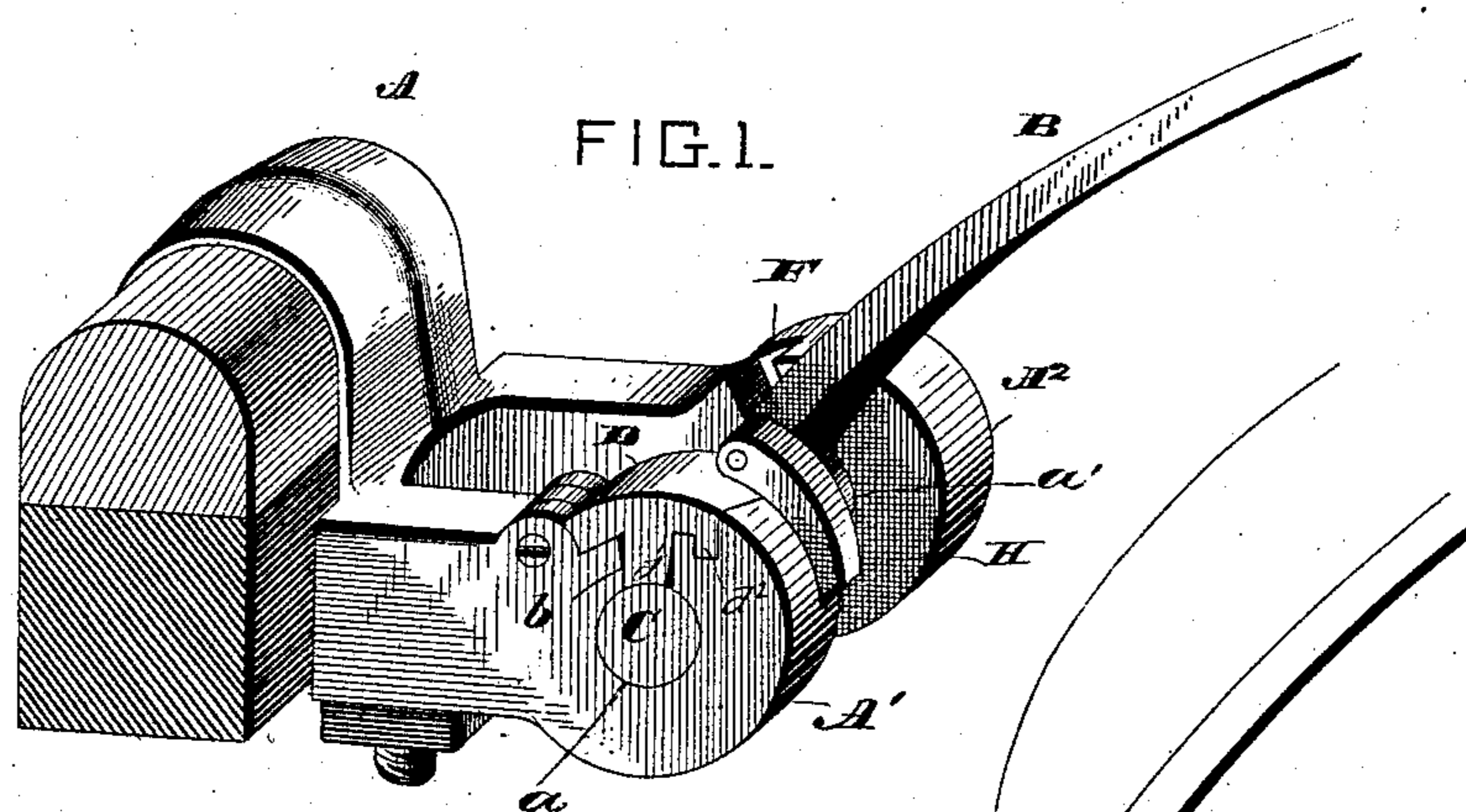


FIG. 2.

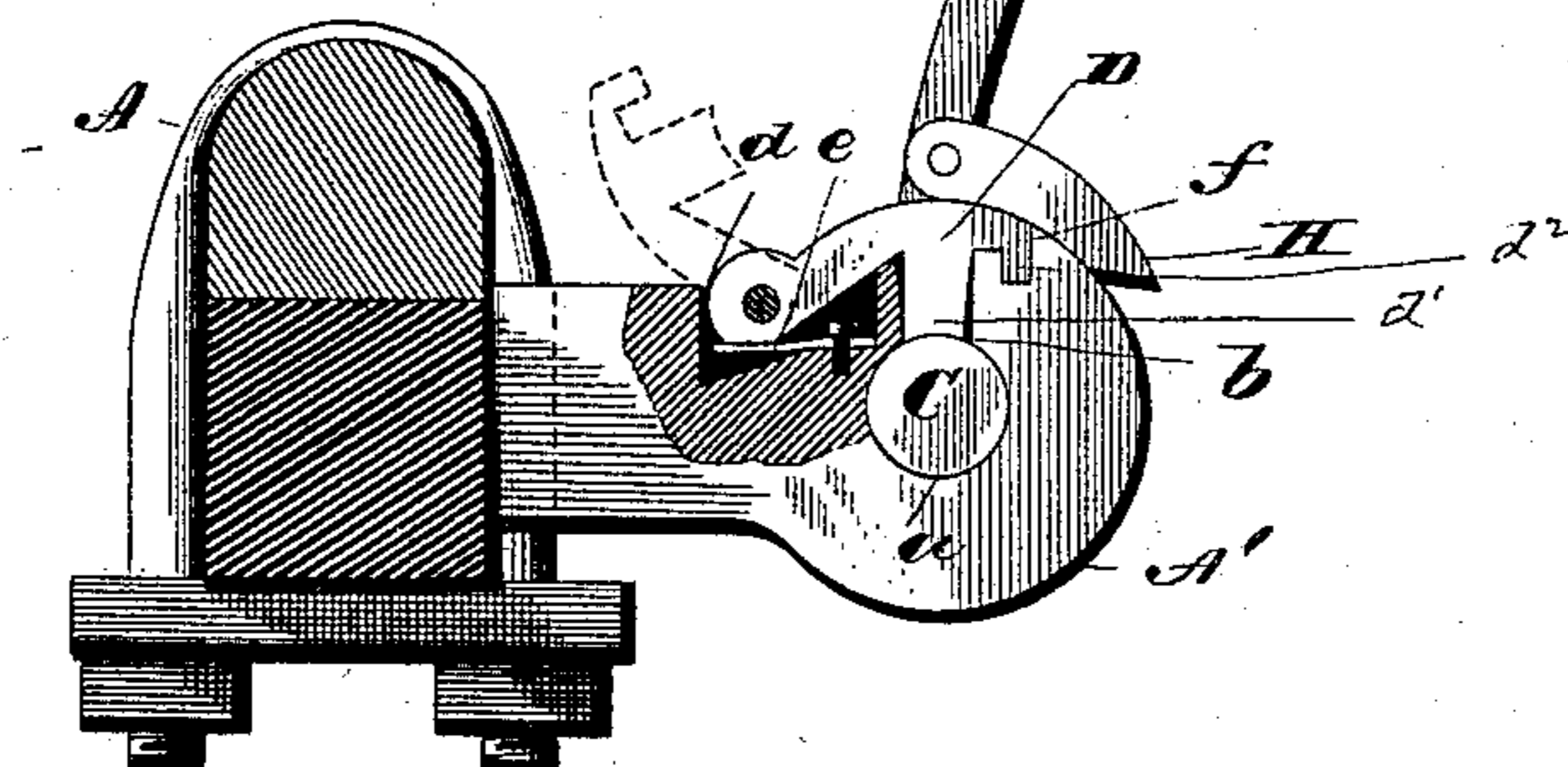
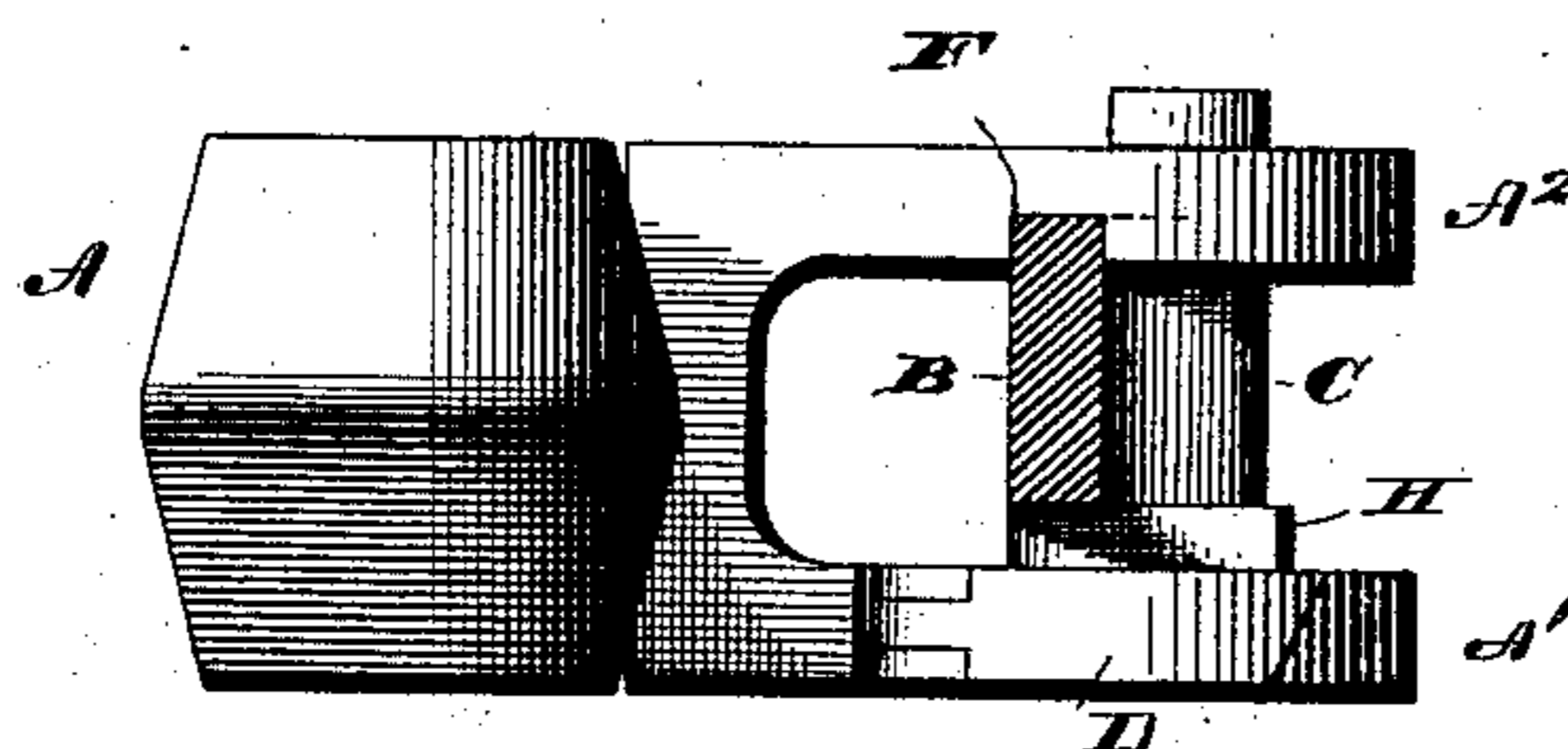


FIG. 3.



John R. Johnson.

WITNESSES

G. S. Elliott.

M. Johnson

INVENTOR

John R. Johnson

Attorney

UNITED STATES PATENT OFFICE.

JOHN R. JOHNSON, OF HARDINSBURG, KENTUCKY.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 372,224, dated October 25, 1887.

Application filed May 19, 1887. Serial No. 238,779. (No model.)

To all whom it may concern:

Be it known that I, JOHN R. JOHNSON, a citizen of the United States of America, residing at Hardinsburg, in the county of Breck-
5 enridge and State of Kentucky, have invented certain new and useful Improvements in Thill-Couplings; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others
10 skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

15 My invention relates to certain new and useful improvements in shaft or thill couplings, the object of my invention being to provide a cheap, simple, and effective means whereby the thills can be readily attached and
20 detached from the shackle, and when attached will be held securely thereto.

My invention also provides a means whereby the thills or shafts can be held in an elevated position when desired; and with the above
25 ends in view my invention consists more especially in the construction and combination of the parts, as will be hereinafter fully set forth, and specifically pointed out in the claims.

In the accompanying drawings, which illustrate my invention, Figure 1 is a perspective
30 view showing a shaft-coupling constructed in accordance with my invention. Fig. 2 is a side view, partly in section, showing the thills held in an elevated position; and Fig. 3 is a
35 plan or top view of Fig. 2.

In the accompanying drawings, A refers to the shackle, which is attached to the axle in the usual manner, said shackle being provided with two projecting portions, A' and A², to
40 which the end of the thill-iron B is secured. The projecting portion A' of the shackle A is provided with a circular opening, a, the opposite projecting portion, A², being also provided with a circular opening, a'. The opening a is
45 provided at its upper end with a slot, b, of sufficient width to permit the lower portion of the thill-iron B, adjacent to the transverse pin C, to pass through this slot. The upper portion of the part A' of the shackle nearest the
50 axle is provided with a recess, d, at the base

of which is secured a flat spring, e, and adjacent to each side of this recess are projecting portions, through which passes a screw for securing a hinged covering-plate, D, to the member A' of the shackle. This member A',
55 opposite the recessed portion, is provided with an angular recess, f, and the pivoted covering-plate is constructed so as to have a depending portion, d', which will fill the slot b, and also a portion, d², which will lie within
60 the angular recess f. The opposite end of the hinged or pivoted covering-plate D is provided with a tongue which lies within the recess d, and through this tongue the screw passes.

The spring e, hereinbefore referred to, is
65 adapted to bear upon a flattened end of this pivoted covering-plate, so as to hold the same within the slot and prevent rattling of the parts, and by providing an angular slot in the shackle and a correspondingly-shaped project-
70 ing portion in the pivoted covering-plate the parts can be wedged firmly together and the wear will be taken up. The side of the thill-iron, in pressing against the inner edge of this pivoted covering-plate D, will jam the same so
75 that there will be but little pressure upon the opposite end. The projecting portion A² of the shackle is of ordinary construction, with the exception that it is provided at a point rear of its center with a recess, F.
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The thill-iron B is of substantially the same width as the space between the projecting portions A' and A² of the shackle, and it is provided at its lower end with a pin, C, which is
85 formed integral therewith, said pin having laterally-projecting ends, which are adapted to lie within the openings a and a'.

To one side of the thill-iron B is pivotally attached a bar, H, which is curved so as to correspond with the outer configuration of the
90 side pieces of the shackle, said bar being of a width about equal to the depth of the slot F. When the thills are in use, this arm will lie normally above the pivoted plate D, and when it is desired to hold the thills in an elevated
95 position they are raised and moved to one side, so that the thill-iron B will enter the recess F, the pivoted arm then falling by gravity between the thill-iron and the portion A' of the shackle, so as to prevent the thill moving out
100

of the slot, thereby holding the thill securely in an elevated position until the pivoted arm is raised and the shaft is moved so that the thill-irons will be out of engagement with the slot.

In order to attach the thills of my improved coupling, the portion D is first thrown back to the position shown in dotted lines, Fig. 2, and the end of the thill-iron is passed sidewise through the slotted opening in the member A' of the shackle. The thills are then allowed to fall, and the covering-plate is thrown down and will be held in a closed position by the spring e, and when in use the pivoted arm H will ride over the pivoted portion D, unless the shafts are elevated and moved to one side so as to hold them in an elevated position.

If desired, the usual rubber blocks may be used with my improved coupling.

I claim—

1. In a thill coupling, a shackle provided with members A' and A², with openings within which the ends of the thill-irons lie, one of

said members being provided with a slot of sufficient width to permit the end of the thill-iron to be passed through the same, a pivoted covering-plate, D, provided with depending portions which are adapted to fill the slot and an angular recess adjacent to the slot, and a spring for holding said covering-plate in a depressed position, substantially as shown, and for the purpose set forth.

2. In a thill-coupling, a shackle constructed substantially as described, and provided with a recess, F, in combination with a thill-iron, B, adapted to be elevated and moved laterally so as to engage with said recess, and a pivoted arm, H, carried by a thill-iron, substantially as and for the purpose set forth.

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

JOHN R. JOHNSON.

Witnesses:

JO H. SKILLMAN,
AMOS SKILLMAN.