No. 712,885. Patented Nov. 4, 1902.

W. WOOD.

TRIPOD FOR ROCK DRILLS.

(Application filed Jan. 3, 1902.)

(No Model.)

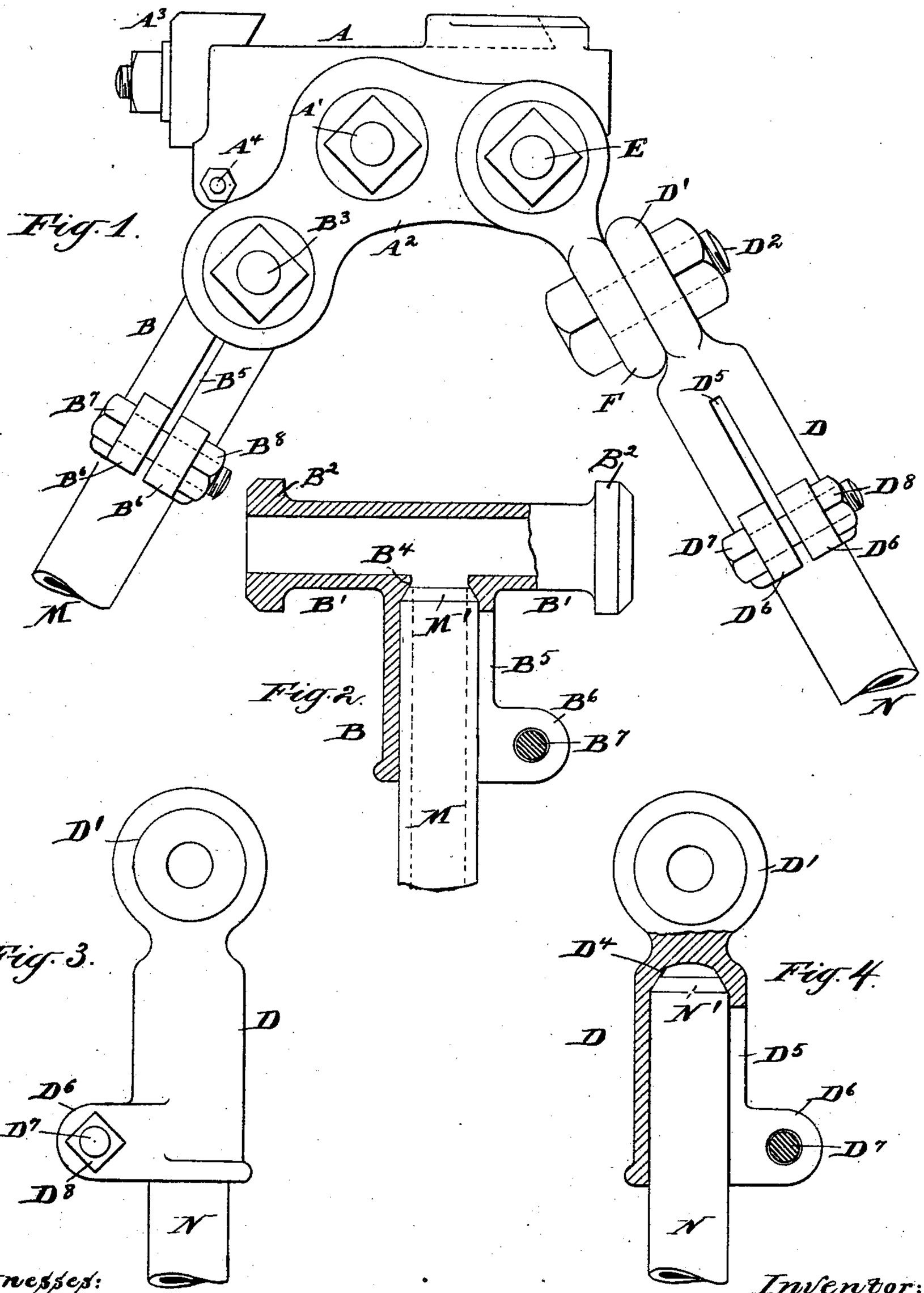

Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

Witnesses:
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UNITED STATES PATENT OFFICE.

WARREN WOOD, OF PATERSON, NEW JERSEY.

TRIPOD FOR ROCK-DRILLS.

SPECIFICATION forming part of Letters Patent No. 712,885, dated November 4, 1902.

Application filed January 3, 1902. Serial No. 88,275. (No model.)

To all whom it may concern:

Be it known that I, WARREN WOOD, a citizen of the United States, residing in Paterson, in the county of Passaic and State of New Jersey, have invented a certain new and useful Improvement in Tripods for Rock-Drills, of which the following is a specification.

The invention relates to means for attaching the supporting-legs to the head of the tripod.

The vibrations induced by the impact of the drill are so severe as to change the shape of the sockets usually employed in which the upper ends of the legs are received and permit the latter to play therein. This looseness is a serious difficulty not easily obviated in the usual construction.

The object of my invention is to provide a construction in which the connection of leg and head is not liable to work loose and which can be easily tightened when required. I attain these objects by providing a conical seat in the upper portion of the interior of each leg-socket in which matches the correspondingly-tapered upper end of the leg and a split or vertical slot in each socket with means for clamping the lower portion of the latter adjustably on the leg. Thus constructed the extreme upper end of the leg is held by its engagement with its seat against lateral movement, and any looseness in the lower portion of the socket may be taken up.

The accompanying drawings form a part of this specification and show the invention as I have carried it out.

Figure 1 is a side view of the upper portion of a tripod constructed in accordance with my invention. Fig. 2 is a section, partly in elevation, showing the back-leg socket alone. Fig. 3 is an elevation showing one of the front-leg sockets, and Fig. 4 is a corresponding section of the other front-leg socket.

Similar letters of reference indicate the same parts in all the figures.

A is the usual saddle-clamp, mounted with liberty to tilt to any required angle on the side bolt A′, extending through the side plates A^2 and equipped, as usual, with a swinging clamp-jaw A^3, pivoted on the bolt A^4, and with other provisions for supporting and firmly holding the cylinder of a rock-drill (not shown) and its connections.

B B′ B′ represent the back-leg fork, a hollow T-shaped casting, the lateral arms B′ B′ of which terminate in circular heads B^2 B^2, tapered on their outer faces or ends to match to corresponding conical seats (not shown) in the side plates and held strongly, but with liberty to turn, when required in adjusting the tripod, on the seats, being held to the latter by a bolt B^3, extending through the plates and arms. The downward extension B is hollow to serve as a socket for the back leg M, the upper end of which it incloses. The upper end of the circular interior of the extension is conical, as at B^4, and the extreme upper end of the leg is correspondingly tapered, as indicated at M′.

B^5 is a slot extending from the lower end of the socket B nearly to the junction with the arms B′ B′, and B^6 B^6 are outwardly-extending lugs cast on the socket near the lower end and drilled to receive a bolt B^7, which, with its nut B^8, serves to draw the lower edges toward each other, and thus clamp the leg. The front legs N, having the tapered upper ends N′, are similarly held in the front-leg sockets D, each terminating above in an eye D′, held by a bolt D^2 in engagement with a corresponding eye F, secured to the side plate by a bolt E. Each socket D has its upper interior coned, as at D^4, and is provided with a slot D^5, lugs D^6, and tightening-bolt and nut D^7 D^8, in all respects similar to the corresponding portions of the extension or socket B for the back leg.

With the legs inserted and clamped it will be readily seen that the jar or vibrations of the structure will tend to force the tapered ends of the legs into closer contact with their seats, and the upper end of each leg is thus held against movement laterally in either direction, and as the clamp formed by the slot, lugs, bolt, and nut firmly grasps the leg at a lower point any movement tending to loosen the leg will be well resisted. In the event of any looseness developing it must appear at the lower end of the socket and can be taken up by tightening the clamp at that point.

The forms and proportions of the several parts are not important, but may be varied within wide limits in adapting the invention to various sizes and types of rock-drill supports. It will also be understood that the

leg-points and other parts of the tripod and drill omitted from the drawings may be of any ordinary or approved construction.

Although I have for convenience of description distinguished the front and back legs by different reference-letters, they are similar in all respects and may be used interchangeably, as desired.

I claim—

1. In a rock-drill tripod, a hollow T-shaped casting, one branch of which is longitudinally slotted with a conical inner end portion terminating within the same, a lug upon each side of the slot at the free end thereof, a leg received in said socket and having its inner end terminating within said socket and tapered to match said conical portion, and means passed through said lugs for drawing together the adjacent edges of the slot and for clamping the said leg in the socket, the opposite ends of the longitudinal portion of said casting terminating in circular heads with tapered outer ends.

2. The combination with the side plates and the saddle-clamp mounted for pivotal movement therein, of a hollow T-shaped casting, the lateral arms of which terminate in circular heads with tapered outer ends received in said side plates to match corresponding seats therein, means held in the side plates and passed through the horizontal portion of said casting, the downward extension of said casting having a socket with the conical upper end and formed with a longitudinal slot and lugs at its lower end, a leg received in said depending portion and having its upper end terminating within said socket beneath the bore of the horizontal portion and made conical to fit the conical portion of the socket, and means passed through said lug at the lower end of said extension to clamp the leg within the extension, substantially as described.

In testimony that I claim the invention above set forth I affix my signature in presence of two witnesses.

WARREN WOOD.

Witnesses:
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