

No. 658,494.

Patented Sept. 25, 1900.

J. H. WATTERS.  
TRACK SANDING DEVICE.

(Application filed July 21, 1900.)

(No Model.)

Fig. 2.

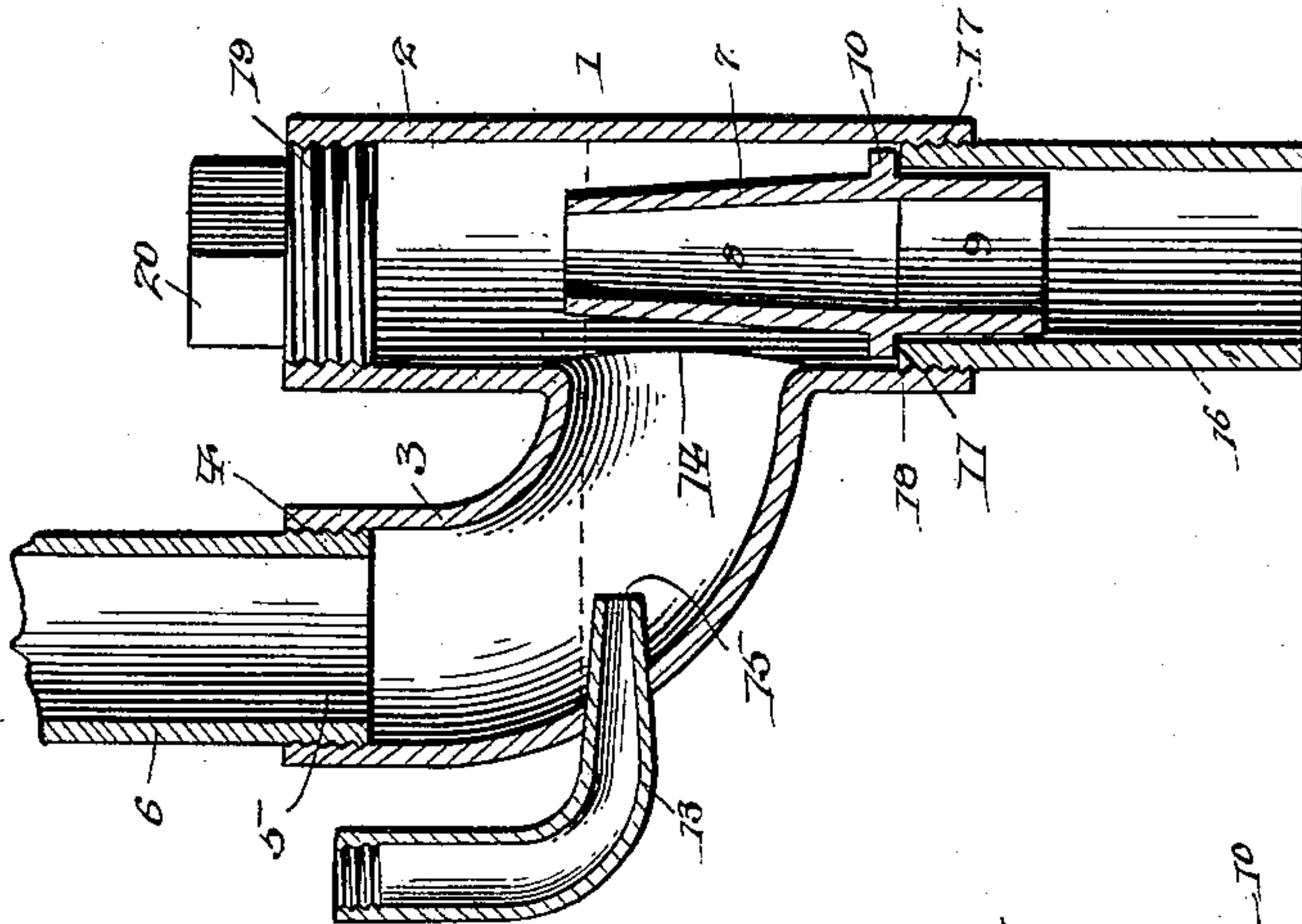


Fig. 3.

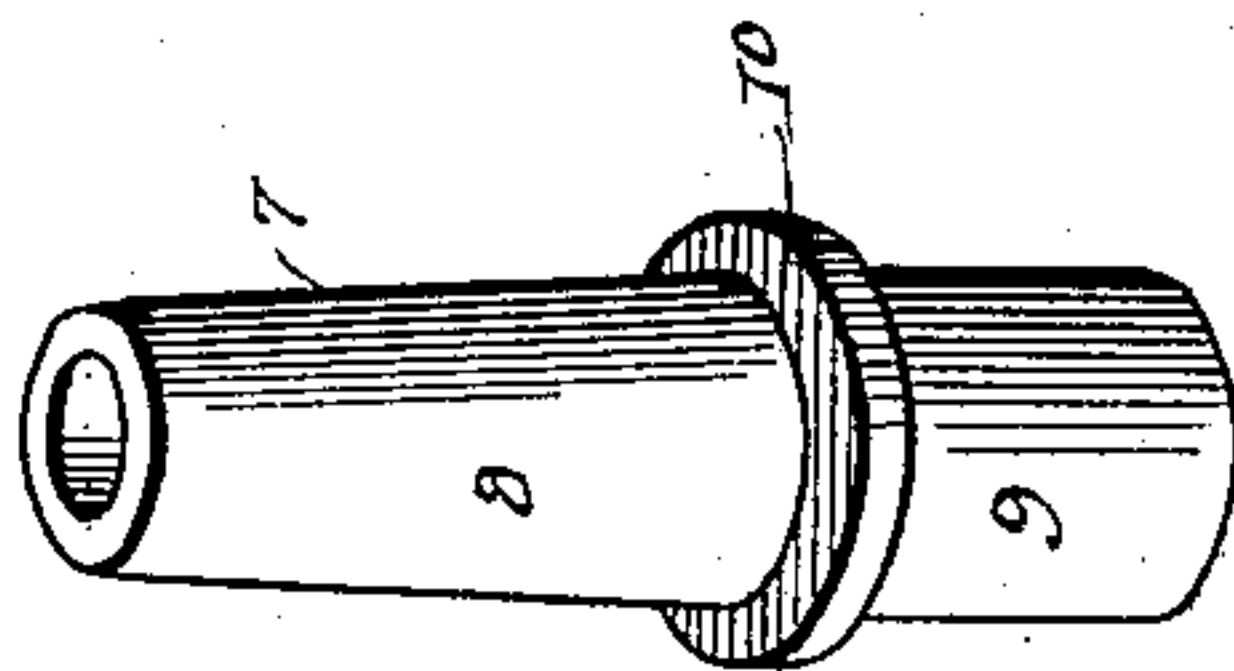
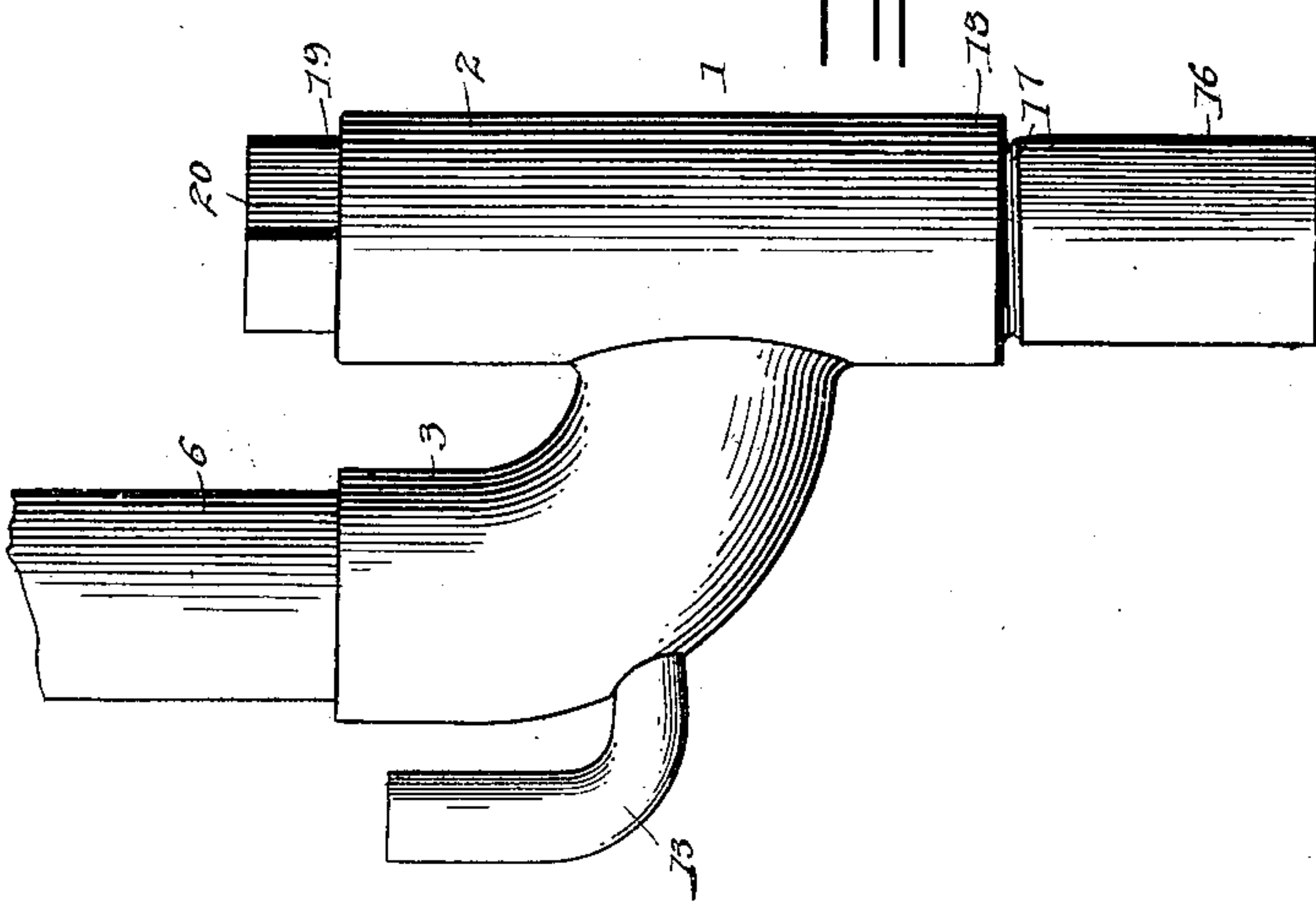


Fig. 1.

Witnesses  
F. E. Alden.  
H. H. Riley

J. H. Watters Inventor  
by C. A. Snow & Co.  
Attorneys

# UNITED STATES PATENT OFFICE.

JOHN HENRY WATERS, OF ANNISTON, ALABAMA.

## TRACK-SANDING DEVICE.

SPECIFICATION forming part of Letters Patent No. 658,494, dated September 25, 1900.

Application filed July 21, 1900. Serial No. 24,440. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN HENRY WATERS, a citizen of the United States, residing at Anniston, in the county of Calhoun and State of Alabama, have invented a new and useful Track-Sanding Device, of which the following is a specification:

The invention relates to improvements in track-sanding devices.

One object of the present invention is to improve the construction of track-sanding devices and to provide a simple, inexpensive, and efficient one designed to be employed on a locomotive and adapted to enable a track to be efficiently sanded without wasting the material.

A further object of the invention is to provide a device of this character which will afford ready access to its interior for cleaning it should it become clogged with gravel or for any other purpose.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a side elevation of a track-sanding device constructed in accordance with this invention. Fig. 2 is a longitudinal sectional view of the same. Fig. 3 is a detail perspective view of the removable inner tube.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates an approximately T-shaped casing consisting of a T-shaped casting or coupling composed of a vertical tubular portion 2 and an elbow or branch 3, extending outward from one side of the tubular portion 2, at the center thereof, and extended upward, as clearly shown in Fig. 1 of the accompanying drawings. The elbow or branch 3 of the casing has its upper end interiorly threaded at 4 for the reception of the lower threaded end 5 of a pipe or tube 6, which is designed to extend to a sand-box of the ordinary construction. The sand-box is designed to be provided with the usual valve mechanism for controlling the passage of sand through the pipe or tube 6, so that the supply may be cut off therefrom when desired.

Within the vertical portion 2 of the casing is arranged a removable inner tube 7, composed of a tapered upper portion 8 and a cylindrical lower portion 9 and having an annular flange 10 at the juncture of the two portions. The flange 10, which extends horizontally from the inner tube, is arranged on the exterior thereof and is adapted to be supported on a suitable seat 11, arranged within the lower portion of the casing. The tapered upper portion 8 of the inner tube forms a contracted nozzle and extends slightly above the plane of the top of the opening at the lower end of the elbow or arm 3 of the casing, and when the sand is delivered into the pipe or tube 6 it falls by gravity and collects within the casing and remains practically on a level with the dotted line illustrated in Fig. 2 of the accompanying drawings, and as the contracted upper portion of the inner tube 7 extends above the opening of the lower end of the elbow or arm 3 the sand will not by gravity flow through the inner tube 7 and be discharged upon the track.

In order to effect a discharge of the sand, an air-inlet tube 13 is extended through an opening of the elbow or arm at a point below the top of the opening 14, so that the projecting nozzle 15 of the air-tube will lie below the level of the sand and below the plane of the top of the opening, so that when a blast of air is delivered into the casing the sand will be carried into the upper portion of the vertical branch or member of the casing and will fall through the inner tube and be discharged upon the track. By this means the sand is efficiently delivered upon the track uniformly, and it is prevented from flowing too rapidly, so that it will not be uselessly wasted, but will be economically expended.

The interior seat 11, which may be constructed in any suitable manner, is preferably formed by a short tube 16, having an upper threaded end 17 fitting within and engaging interior screw-threads of the lower end 18 of the vertical portion or member of the casing. The upper end of the vertical portion or member of the casing is exteriorly screw-threaded for the reception of a removable plug 19, having a polygonal portion 20, adapted to be engaged by a wrench, whereby



the plug may be readily removed to afford access to the interior of the casing, so that the latter may be cleaned, should it become clogged, by gravity. The annular opening  
 5 around the tube 7 is of a width less than the diameter of the upper end of the said tube 7, so that anything which passes into the upper portion of the vertical portion or member  
 10 of the casing will be discharged through the tube 7 and will not clog the same. When the plug is removed, the inner tube, which forms a valve or cut-off to prevent the sand from flowing directly through the casing, may be taken out. When it becomes neces-  
 15 sary to clean out gravel from the device, it will all pass out through the same to the rails and no sand will come in contact with the machinery of a locomotive.

It will be seen that the track-sanding device is exceedingly simple and inexpensive in construction, that it is capable of economically expending the sand and of preventing the latter from flowing freely through the casing, and that it will enable a track to be  
 25 efficiently sanded with a minimum amount of material.

Changes in the form, proportion, size, and the minor details of construction within the scope of the appended claims may be resorted  
 30 to without departing from the spirit or sacrificing any of the advantages of this invention.

What I claim is—

1. A track-sanding device comprising a casing having an arm designed to be connected  
 35 with a sand-box, an inner tube or nozzle extending to the top of the opening of the arm and adapted to prevent sand from passing directly through the casing, and an air-tube  
 40 communicating with the casing and adapted to force the sand above the inner tube or nozzle, substantially as described.

2. A track-sanding device comprising a casing having an arm designed to be connected  
 45 with a sand-box, an inner tube arranged within the casing and extending to the top of the opening of the arm, and an air-tube extending through the arm and provided with a nozzle located within the arm at a point be-  
 50 low the upper end of the inner tube and adapted to force the sand into the upper por-

tion of the casing to cause the same to be forced through the inner tube, substantially as described.

3. A track-sanding device comprising a casing consisting of a vertical tubular portion,  
 55 and an arm extending from the same at one side thereof and designed to be connected with a sand-box, an inner tube arranged within the vertical portion of the casing and  
 60 extending above the opening of the arm, and an air-tube extending into the lower portion of the arm at a point below the upper end of the inner tube, substantially as described.

4. A track-sanding device comprising a casing consisting of a vertical tubular portion  
 65 having an interior seat, and an arm extending upward from the vertical tubular portion at a point between the ends thereof, an inner tube supported upon the said seat and extend-  
 70 ing to the top of the opening at the lower end of the said arm, and an air-tube extending into the casing, substantially as described.

5. A track-sanding device comprising a casing consisting of a vertical tubular portion,  
 75 and an arm extending upward from one side of the vertical tubular portion, a lower tube extending into the lower end of the vertical tubular portion of the casing and forming a seat, a removable inner tube extending to the  
 80 top of the opening of the lower end of the arm and provided between its ends with a supporting-flange arranged upon the said seat, a plug closing the upper end of the ver-  
 85 tical portion of the casing, and an air-tube extending into the casing, substantially as de-

scribed.  
 6. A track-sanding device comprising a casing having a seat and provided with an arm  
 90 designed to be connected with the sand-box, an interior tube having a tapered upper portion and provided with a flange arranged upon the said seat and means for forcing the sand through the inner tube, substantially as de-  
 95 scribed.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JOHN HENRY WATTERS.

Witnesses:

H. A. YOUNG,

W. C. TUNSTULL, Jr.