

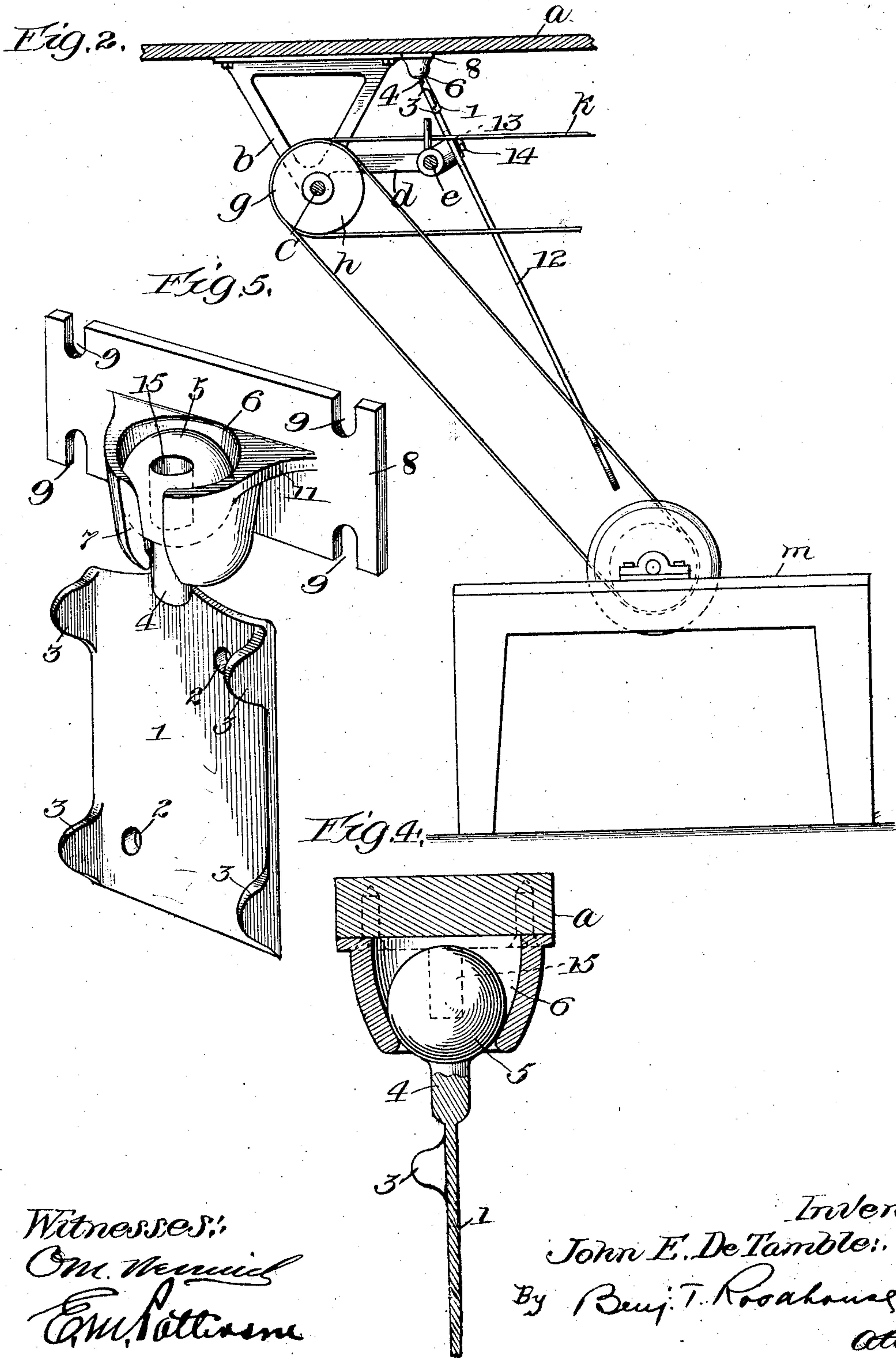
No. 844,333.

PATENTED FEB. 19, 1907.

J. E. DE TAMBLE.
MEANS FOR ATTACHING BELT SHIFTER RODS OR POLES.

APPLICATION FILED FEB. 10, 1906.

2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

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MEANS FOR ATTACHING BELT-SHIFTER RODS OR POLES.

No. 844,383.

Specification of Letters Patent.

Patented Feb. 19, 1907.

Application filed February 10, 1906. Serial No. 300,429.

To all whom it may concern:

Be it known that I, JOHN E. DE TAMBLE, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Means for Attaching Belt-Shifting Rods or Poles, of which the following is a specification.

My present invention relates to improvements in means for attaching belt-shifting rods or poles, and has for its object the provision of such means which can be readily applied wherever desirable.

At present, as far as I am aware, there are no specific means for such attachments, the mechanic being content with any makeshift—such as a nail, a hinge, or a hole in the ceiling or wall—or anything which will give a leverage to force the belt from the idler to the fixed pulley on the counter-shaft. There are, however, several extremely desirable conditions which should be met and fulfilled by any such attachment. The first of such requirements is an attachment which is readily applicable to the various structural conditions met with in the machine shop or factory. Such an attachment must be capable of being manufactured in the simplest and most inexpensive manner. Again, such attachment should permit of the freest movement without any lost motion, and, finally, the attachment should permit of the rod or pole being positioned out of a vertical line, if necessary, so as to bring its end in the most convenient position for the machinist or operator while working at the machine. The failure of the attachment to fulfil any one or more of these conditions very often entails a great deal of unnecessary inconvenience.

To the accomplishment of these various objects I have provided the new and novel structure and combination of parts, as will presently appear.

In the drawings, Figure 1 is a perspective view of a portion of a ceiling of a machine-shop with hangers carrying a counter-shaft, said hangers being further provided with brackets carrying a belt-shifting shaft, a belt-shifting rod or pole carried thereby and attached to the ceiling with my improved attaching means. Fig. 2 is a sketch showing conditions when it is desirable to position the belt-shifting rod or pole at an angle to the vertical. Fig. 3 is a perspective view of a

form of my attaching means applicable to a ceiling. Fig. 4 is a vertical sectional view of the construction shown in Fig. 3, and Fig. 5 is a perspective view of a form of my attaching means applicable to a wall or the side of a beam or joist.

The numeral 1 designates a plate having the screw-holes 2 and the right-angled projections 3. Upon one end of the plate 1 is provided the round pin 4, carrying upon its outer end the ball 5.

The numeral 6 designates a socket or cup suitable for containing the ball 5. The socket 6 is cut away at 7, so as to permit the pin 4 and the plate 1 to be swung at any angle beneath the socket 6 after the ball 5 has been inserted therein.

In the form of my invention made for attaching to the ceiling, as illustrated in Fig. 3, I provide the plate 8 directly upon the upper edges of the socket 6, the said plate 8 being provided with the screw-holes 9, through which pass the screws 10 to attach it to the ceiling.

In the form of my invention for attaching to walls or the sides of beams or joists, as illustrated in Fig. 5, the socket 6 is attached to the plate 8 through the medium of the flanges 11. In this form I also prefer to provide the screw-holes 9 through to the edge of the plate. With this construction two screws can be driven properly, the plate 8 placed in position, and the third and fourth screw then driven. This is a considerable advantage at times, as the two most difficult screws can be driven without the plate and socket being in the way.

The letter *a* designates a ceiling; *b*, hangers attached thereto and carrying the counter-shaft *c* and the brackets *d*, said brackets carrying the belt-shifting shaft *e*. Upon the counter-shaft *c* is shown a cone *f*, pulley *g*, and idler *h*. Upon the belt-shifting shaft *e* is shown the pins or fork *i*, between which and over the pulley *g* and idler *h* passes the belt *k*.

To the plate 1, between the right-angled projections 3, by means of screws 10 passing through the holes 2 I attach the belt-shifting rod or pole 12. The belt-shifting rod or pole 12 is provided with the slot 13, through which by means of the bolt 14 it is attached to the belt-shifting shaft *e*.

The fabrication of my attaching means, as

above described, is accomplished by casting or molding, and the ball member is cast with the core 15 therein, as clearly shown in Figs. 3, 4, and 5. This core not only lightens the construction, but by greatly reducing the sectional mass of metal greatly reduces the distortion incident to the cooling of cast metal, so that the members are suitable for use when they come from the molds and require no turning or truing in a lathe.

In Fig. 2 it is obvious that if the belt-shifting rod or pole 12 came down vertically it would not be conveniently in reach of the machinist or operator working at the machine *m*.

Having described my invention, it is obvious that I provide an attaching means for belt-shifting rods or poles readily attached or detached, which are very simple and inexpensive in construction, and which while pre-

venting lost motion will permit of the rod or pole being positioned in the most advantageous manner.

What I claim as new, and desire to secure by Letters Patent, is—

As an article of manufacture a ball-and-socket connection for belt-shifting rods comprising a socket member cast with an opening of uniform width from the bottom to the top thereof and an attaching-plate thereto and a ball member cast with a connection adapted to play in all directions in the said opening of the socket member.

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

JOHN E. DE TAMBLE

Witnesses:

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