Dec. 11, 1928. 1,694,900

O. E. ZIMMERLING

BOWLING BALL POLISHING ATTACHMENT FOR PIN TRIMMING AND POLISHING MACHINES

Filed Nov. 10, 1927

Fig. 1.

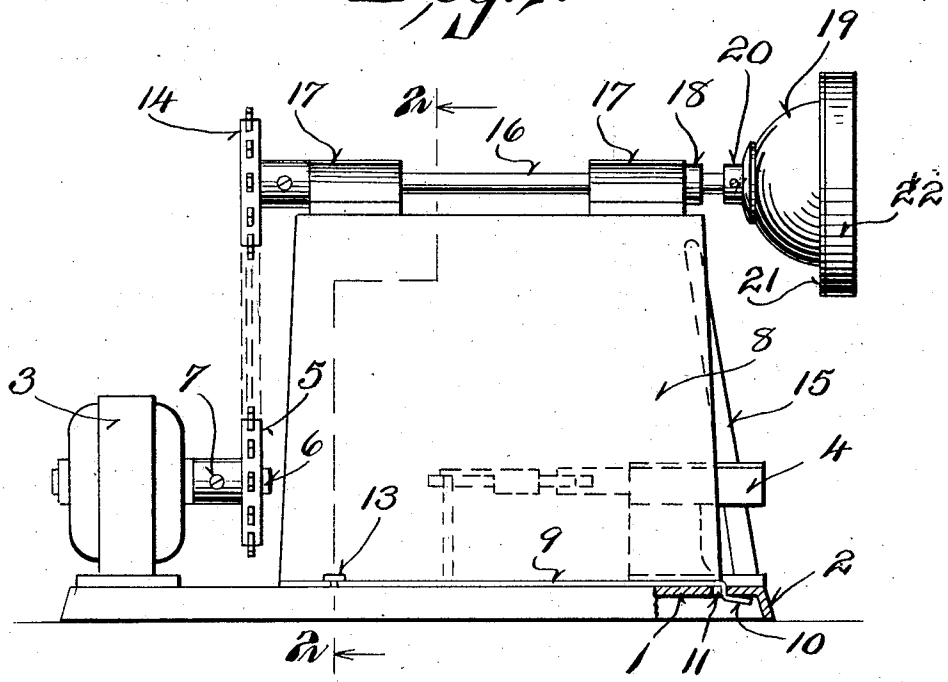


Fig. 3.

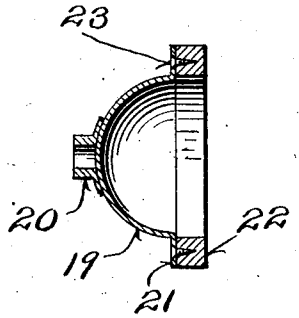


Fig. 2.

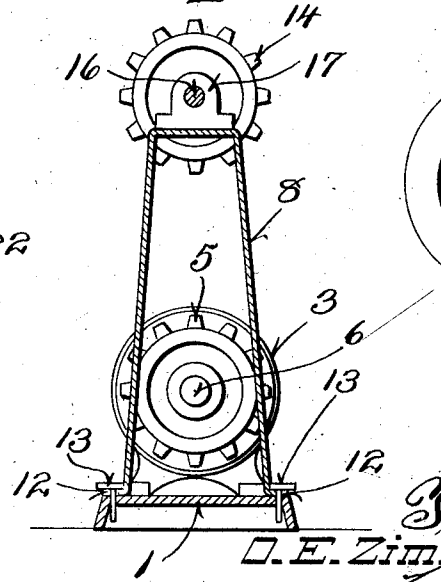
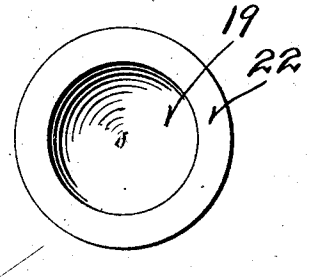


Fig. 4.



Witness.

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UNITED STATES PATENT OFFICE.

OTTO E. ZIMMERLING, OF WAUWATOSA, WISCONSIN.

BOWLING-BALL-POLISHING ATTACHMENT FOR PIN TRIMMING AND POLISHING MACHINES.

Application filed November 10, 1927. Serial No. 232,376.

This invention relates to a bowling ball polishing attachment for pin trimming and polishing machines.

Objects of this invention are to provide an attachment for a trimming machine for bowling pins which may be readily applied to a standard type of pin trimming and polishing machine, and which is adapted to polish the bowling balls in a rapid and efficacious manner.

Further objects are to provide an attachment which may be applied to the pin trimming machine with the minimum of effort and with scarcely any alteration of parts.

Further objects are to provide an attachment which is of sturdy and simple design and which may be very cheaply manufactured.

An embodiment of the invention is shown in the accompanying drawings in which:

Figure 1 is a side elevation of the attachment in place on the pin trimming machine, with parts in section;

Figure 2 is a sectional view on the line 2—2 of Figure 1;

Figure 3 is a sectional view through the polishing head;

Figure 4 is an end view thereof.

Referring to the drawings, it will be seen that a pin trimming machine has been shown as provided with a base plate 1 supported by downturned flanges 2. This base plate carries a driving motor 3 such as a small electric motor, for instance, adjacent one end and a tail stock 4 adjacent the other end. The motor shaft is usually provided with a chuck for receiving the head of the pin.

In applying the attachment, the chuck is removed and a sprocket wheel 5 is slipped over the motor shaft 6 and secured thereto by means of a set screw 7 passing through the hub of the sprocket wheel. The attachment comprises a body portion consisting of a hollow upstanding sheet metal member 8 forming a support. This sheet metal member is provided with an outwardly turned lower flange 9 adapted to rest upon the base plate 1 of the machine. This support is also provided with one or more outwardly turned and downwardly pressed tongues 10 which fit through apertures 11 formed in the front end of the base plate. Further, the support is provided with notches 12 (see Figure 2) through which pins 13 may be passed. These pins extend through apertures formed in the base plate 1, as shown in Figure 2. It is not necessary to lock the support tightly to the base plate as the chain carried by the sprocket wheel 5 and by an upper sprocket wheel 14 holds the device downwardly adjacent its rear end. The pins 13 prevent lateral shifting of the device. Adjacent the front end, it will be noted that the tongues 10 hold the attachment in place. The attachment is made open at its front and rear and thus accommodates the handle 15 of the tail stock 4.

The attachment is provided with an elongated shaft 16 at its upper portion carried by front and rear bearings 17. These bearings are spaced widely apart to give the necessary security of attachment for the rotary shaft and to prevent vibration thereof. This shaft is equipped at its rear end with the sprocket wheel 14, previously mentioned, which is connected by means of a chain with the driving sprocket 5. The shaft is provided also with a collar 18 which contacts with one of the bearings 17 and prevents rearward shifting thereof, the hub of the sprocket wheel 14 preventing forward shifting.

The shaft carries a sheet metal head 19 adjacent its forward end which is secured to the shaft by means of the hub 20. This sheet metal head, as may be seen from Figure 3, is provided with an outwardly turned marginal flange 21 provided with apertures and contacting with a ring 22 of any suitable material. This ring 22 is held in place by means of screws 23. The ring 22 prevents inadvertent contacting of the ball with the edge of the metal head and also forms a tubular extension so that if pressure upon the ball is removed, the ball will not immediately fall from the head.

It will be seen that a novel form of attachment has been made which may be applied to a pin trimming and polishing machine with a minimum of effort, and which is so constructed that it is adapted for the polishing of the bowling balls, the polishing being effected by the use of any suitable polishing compound placed in the head while the operator holds the projecting portion of the ball.

Although the invention has been described in considerable detail, such description is intended as illustrative rather than limiting as the invention may be variously embodied and as the scope of such invention is to be determined as claimed.

I claim:

1. The combination of a pin trimming and polishing machine for bowling pins and an attachment therefor, said machine comprising a base plate having apertures adjacent its front end and apertures adjacent its rear end, a driving motor carried by said base plate, a sprocket wheel removably carried by said driving motor, said attachment having a support provided with prongs adapted to fit into the first mentioned apertures and having means for engaging within the second mentioned apertures, an elongated shaft carried by the upper portion of said attachment, a sprocket wheel carried by the rear end of said shaft and adapted for operative driving from said first mentioned sprocket wheel, and a ball polishing head carried by the forward end of said shaft.

2. The combination of a bowling pin trimming and polishing machine comprising a base plate having a tail stock adjacent one end and a driving motor adjacent the other, said attachment comprising a hollow upstanding supporting member adapted for attachment to said base plate and spanning said tail stock, a pair of bearings arranged in spaced relation and carried by the upper portion of said support, an elongated shaft carried within said bearings and projecting from the forward and rear ends of said attachment, driving means for connecting said motor to the rear end of said shaft, and a ball polishing head carried by the forward end of said shaft.

In testimony that I claim the foregoing I have hereunto set my hand at Milwaukee, in the county of Milwaukee and State of Wisconsin.

OTTO E. ZIMMERLING.