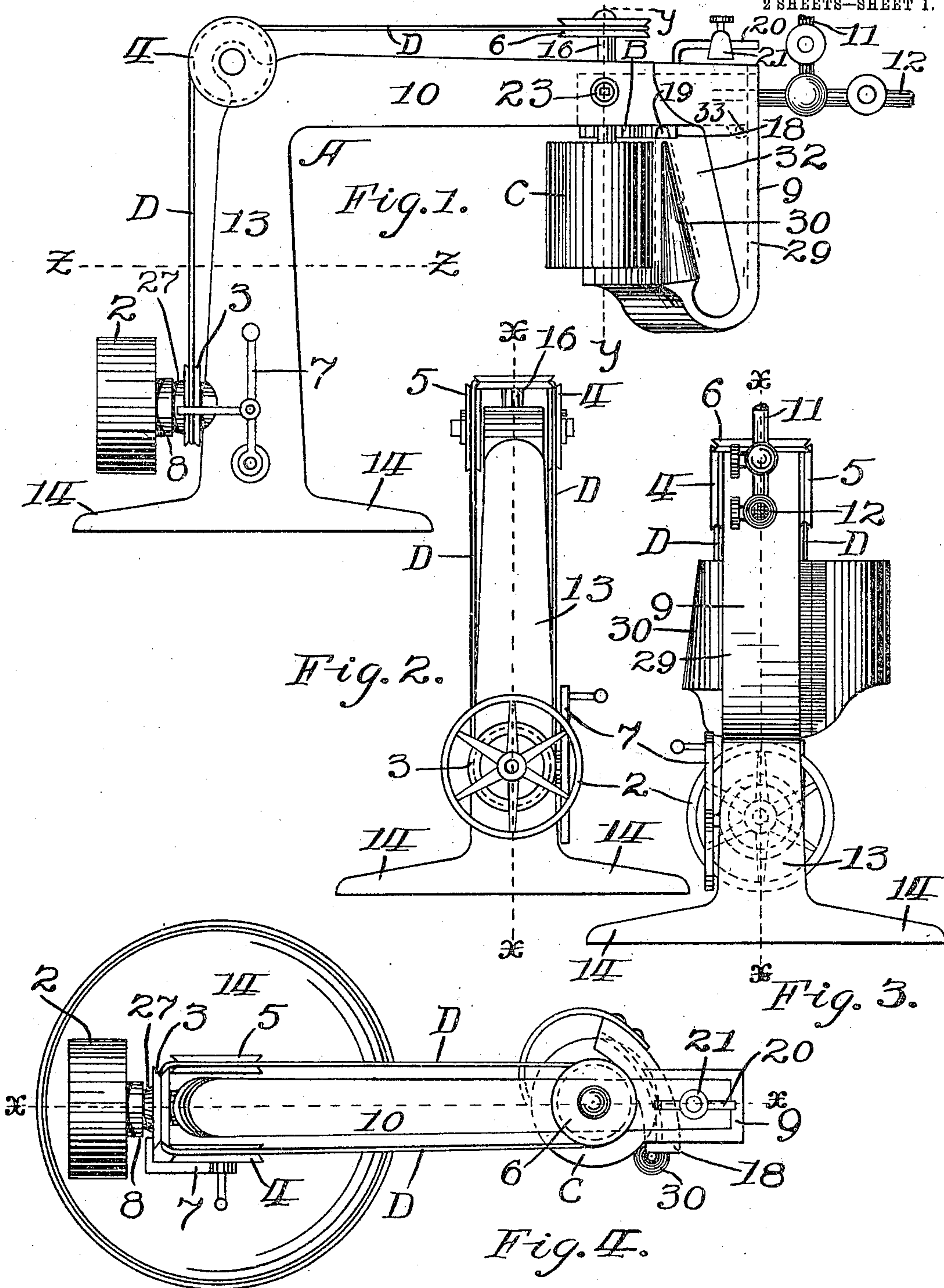


G. F. KRIESEL.
COLLAR BURNISHING MACHINE.
APPLICATION FILED MAY 6, 1905.

952,674.

Patented Mar. 22, 1910.

2 SHEETS—SHEET 1.



Witnesses:
R. A. Fischer.
Mae Beamer.

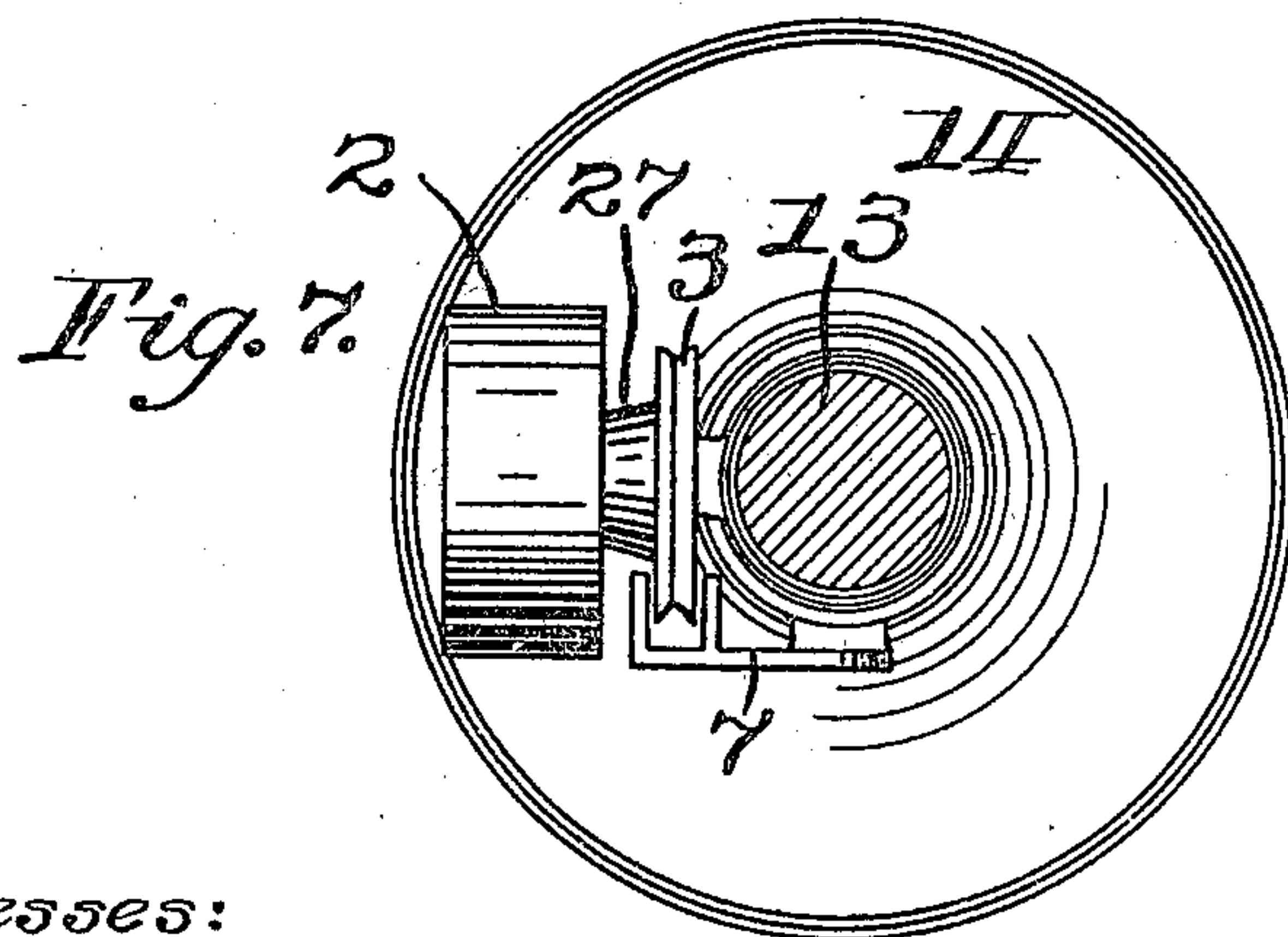
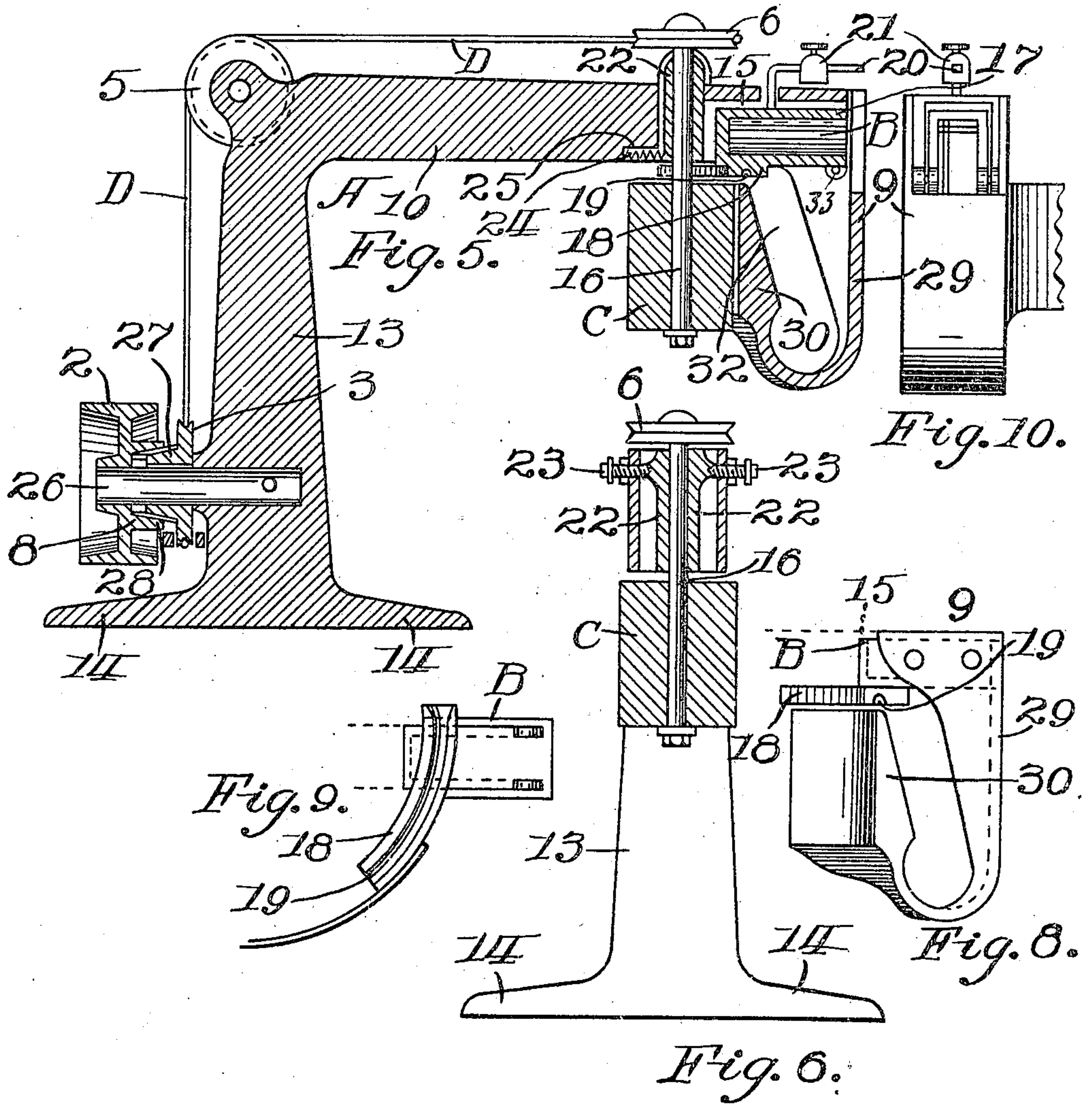
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2 SHEETS—SHEET 2.



Witnesses:
R. A. Fischer.
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UNITED STATES PATENT OFFICE.

GUSTAVE F. KRIESEL, OF MINNEAPOLIS, MINNESOTA.

COLLAR-BURNISHING MACHINE.

952,674.

Specification of Letters Patent. Patented Mar. 22, 1910.

Application filed May 6, 1905. Serial No. 259,232.

To all whom it may concern:

Be it known that I, GUSTAVE F. KRIESEL, of Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Collar-Burnishing Machines, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to improvements in collar burnishing machines, and more particularly to machines for burnishing folded or turn down collars, and consists in providing means for burnishing the edges, and for molding and shaping the collars, as will be hereinafter more fully set forth.

In the drawings Figure 1 is a side elevation of my improved collar burnishing machine; Fig. 2 is an end elevation thereof as viewed from the rear; Fig. 3 is an end elevation thereof as viewed from the front; Fig. 4 is a top view thereof; Fig. 5 is a vertical section taken on the line X—X of Figs. 2, 3 and 4; Fig. 6 is a vertical cross section taken on the line Y—Y of Fig. 1; Fig. 7 is a horizontal section taken on the line Z—Z of Fig. 1; Fig. 8 is a detail side elevation of the burnishing block and former; Fig. 9 is a plan view of the bottom of the burnishing block, and Fig. 10 is an end view, partly broken away, of the block and former.

My improved collar burnishing machine consists of a support A, burnishing iron B and feed roller C. The driving pulley 2 is mounted on the support A, as are also the belt wheels 3, 4, 5 and 6. The pulley 2 is thrown into and out of engagement with the belt wheel 3 by means of the shifter 7, which operates the friction clutch mechanism 8. The guide and former 9 is formed on the end of the arm 10 of the support A, and carries gas and air pipes 11 and 12.

The support A may be constructed in different ways and of different forms, its particular construction or configuration not being essential features of my invention. It consists, as herewith shown, of a single piece of metal having a vertical portion 13 and a horizontal portion 10. The vertical portion 13 is provided with a base or foot 14 by means of which it may be bolted or otherwise secured to a table, and the horizontal

portion 10 is provided at its outer end with a recess 15 adapted to receive the burnishing iron B and the shaft 16 of the feed roller C.

The burnishing iron B consists of the rectangular box 17, closed upon four sides and in the rear but open in front, thus adapting it to receive the jet of a gas burner hereinafter described. It is provided upon its under side with a transversely arranged burnishing plate 18 having a longitudinal groove 19 in its lower face, which groove is adapted to receive the folded upper edge of the collars. The burnishing iron B is, by means of the pintle 33, pivotally affixed (see Fig. 5) in the recess 15 of the arm 10, at a point on a level with the burnishing plate 18, as shown, so that when vibrated said burnishing plate will not be moved laterally. It is held normally in place and vertical pressure given thereto by means of a beam 20 affixed thereto and the weight 21 mounted thereon.

The feed roller C is preferably made of rubber and is rigidly affixed to the lower end of the vertical shaft 16, which shaft is journaled in the box 22, said box in turn being pivotally affixed in the recess 15 of the arm 10 by means of the set bolts 23. This feed roller C is held normally in place and a lateral pressure placed thereon by means of the spring 24 which spring is in a recess 25 in the arm 10 and impinges against the journal box 22.

The driving pulley 2 is loosely journaled upon the horizontal spindle 26, which spindle is rigidly affixed in the vertical portion 13 in the support A and serves, when in engagement with the belt wheel 3, as hereinafter described, to operate my improved collar burnishing machine.

The belt wheels, four in number, consist of the driving sheave wheel 3 loosely journaled upon the horizontal spindle 26, the driven sheave wheel 6 which is rigidly affixed to the shaft 16, the forward running sheave wheel 4, loosely journaled upon the upper portion of the support A, and the backward running sheave wheel 5 similarly journaled, the two last named sheave wheels 4 and 5 being idlers.

In operation the endless driving belt D passes under and around the driving sheave wheel 3, thence upward over the idler sheave

wheel 4, thence horizontally forward to and around the driven sheave wheel 6, thence horizontally rearward over the idler sheave wheel 5, thence downward to the driving sheave wheel 3.

The friction clutch 8 is not unlike those commonly used, and consists of a laterally extending, outwardly tapered hub 27 affixed to or integral with the driving sheave wheel 3. This hub is adapted to be received within an inwardly tapered band 28 affixed to or integral with the driving pulley 2. The friction clutch mechanism is operated by the friction clutch shifter 7 in the usual manner; that is, by throwing the driving sheave wheel 3 laterally on the spindle 26.

The guide and former 9 may be a part and portion of the support A, or it may be made in a separate piece and affixed thereto, as the manufacturer may elect. It consists of a suspended portion 29 supporting an upwardly turned horizontally curved element 30, the upper curved edge of which conforms to and terminates directly beneath the curved groove 19 in the plate 18 of the burnishing iron B. This upwardly turned curved element 30 serves as a bar over which the folded collars lie, and also as a shaper for the collars, giving them an annular form adapted to fit the neck of the wearer.

My burnishing machine is operated as follows: The gas is first turned on by opening a stop cock in the gas supply pipe 11 and lighted in the burnishing iron B; the air blast is then turned on by opening a stop cock in the air supply pipe 12. The supply of both gas and air is carefully regulated until the proper degree of heat is attained within the burnishing iron B. When the burnishing plate 18 is hot enough power is applied to the machine by throwing the shifting lever 7 over to the left, thereby causing the driving sheave wheel 3 to move over and tighten the clutch mechanism 8. This causes the driving sheave wheel 3 to revolve, and through the operation of the endless driving belt D power is transmitted from the driving sheave wheel to the driven sheave wheels, over the idler wheels. This causes the feed roller C, which is rigidly journaled on the lower end of the shaft 16, to revolve; the folded collars are then placed over and across the upwardly extending element 30 of the guide and former 9 letting the bands of the collars run in between the feed roller C and the upwardly extending element 30, and the over-folded portions of the collars pass through the opening 32 in the former 9, as shown by dotted lines in Fig. 1, when the collars will be drawn into and forced through the machine, their folded edges being burnished by contact with the groove 19 in the heated burnishing plate

18, and as the collars pass through the curved groove 19 and around the curved portion of the element 30 they will be shaped to fit the neck of the wearer, and by reason of the roll given to the fold by the element 30 will permit a necktie to slide freely through the collar.

Having described my invention, what I claim as new and desire to protect by Letters Patent, is:

1. In a collar burnishing machine, the combination of a support or frame, a recess or chamber therein, a burnishing iron pivotally affixed to said support and vertically vibratory within the said recess, a burnishing plate constituting a part of the said burnishing iron, a curved groove in the under face of the said burnishing plate, a journal box pivotally affixed and horizontally vibratory in the recess of the said support or frame, said journal box being arranged in the rear of the said burnishing iron, a vertical shaft journaled and revoluble within the said journal box, a feed roller affixed to and revoluble with the said shaft, a guide and former suspended from the said support and lying in front of the said feed roller, a beam and weight for putting vertical pressure upon the said burnishing iron, and means, as pulleys and belts, for revolving the said vertical shaft, all substantially as shown and described.

2. In a collar burnishing machine, the combination of a support, a recess therein, a burnishing iron pivotally affixed to said support and vertically movable within the said recess, means for heating said burnishing iron which comprises a rectangular box open at one end to give access to said means for heating said burnishing iron, a burnishing plate affixed thereto and a curved groove in the under face of the said burnishing plate, a journal box pivotally affixed in the recess of the said support, means for holding the said journal box in normal position, a vertical shaft journaled and revoluble within the said journal box, a feed roller affixed to and revoluble with the said shaft, a guide and former carried by the said support and living in front of the said feed roller, means for applying vertical pressure to the said burnishing iron, and means for revolving the said vertical shaft, substantially as specified.

3. In a collar burnishing machine, the combination of a support or frame, a recess or chamber therein, a burnishing iron pivotally affixed to said support and vertically vibratory within the said recess, a burnishing plate constituting a part of the said burnishing iron, a curved groove in the under face of the said burnishing plate, a journal box pivotally affixed in the recess of the said support or frame, said journal box being ar-

5 ranged in the rear of the said burnishing iron, a vertical shaft journaled and revoluble within the said journal box, a feed roller affixed to and revoluble with the said shaft, a guide and former carried by the said support and lying in front of the said feed roller, means for applying vertical pressure to the said burnishing iron, and means for revolving the said vertical shaft, all substantially as shown and described.

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Witnesses:

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