

No. 808,645.

PATENTED JAN. 2, 1906.

F. S. EMMONS.

HAIR DRIER.

APPLICATION FILED APR. 18, 1905.

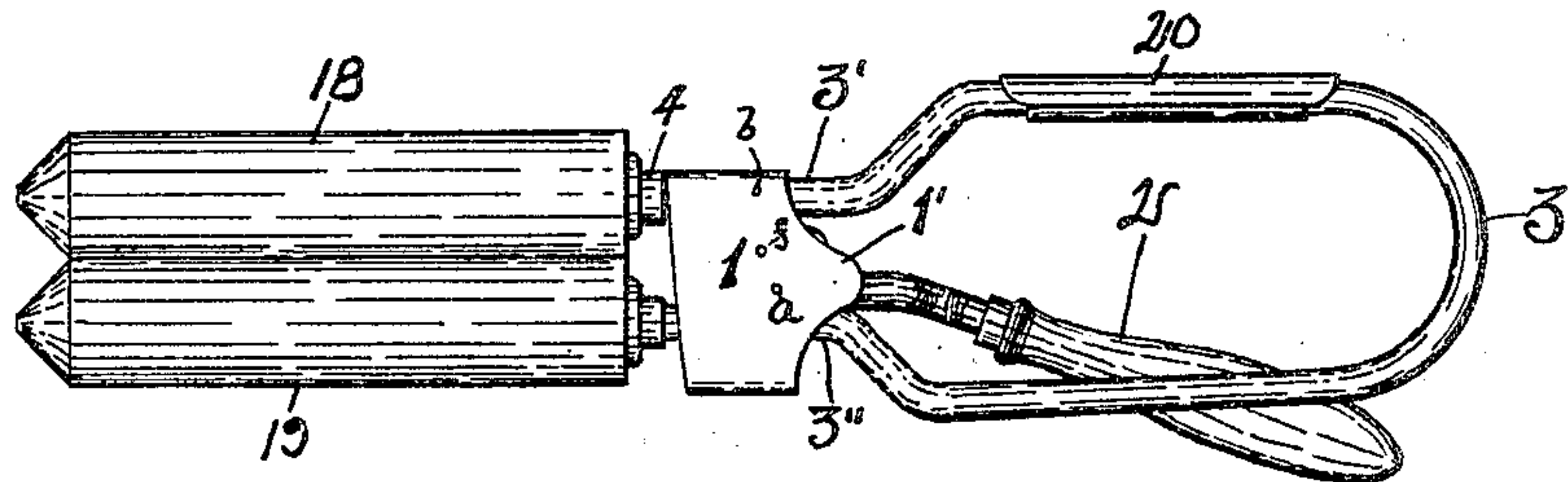


Fig. 1.

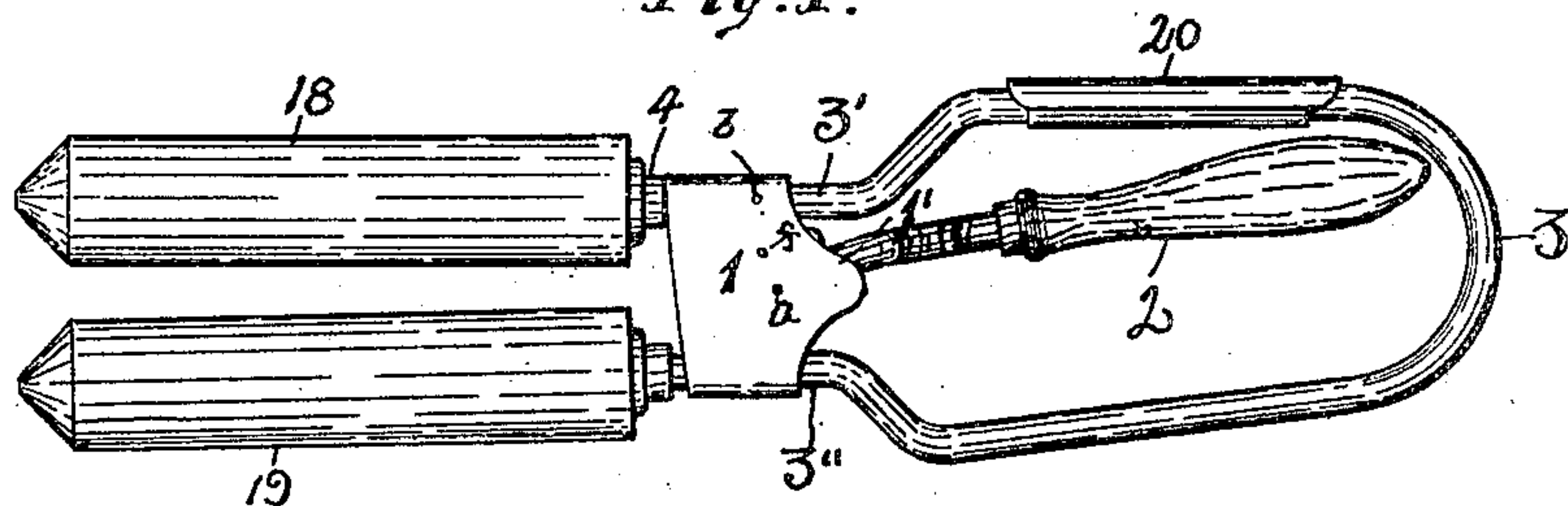


Fig. 2.

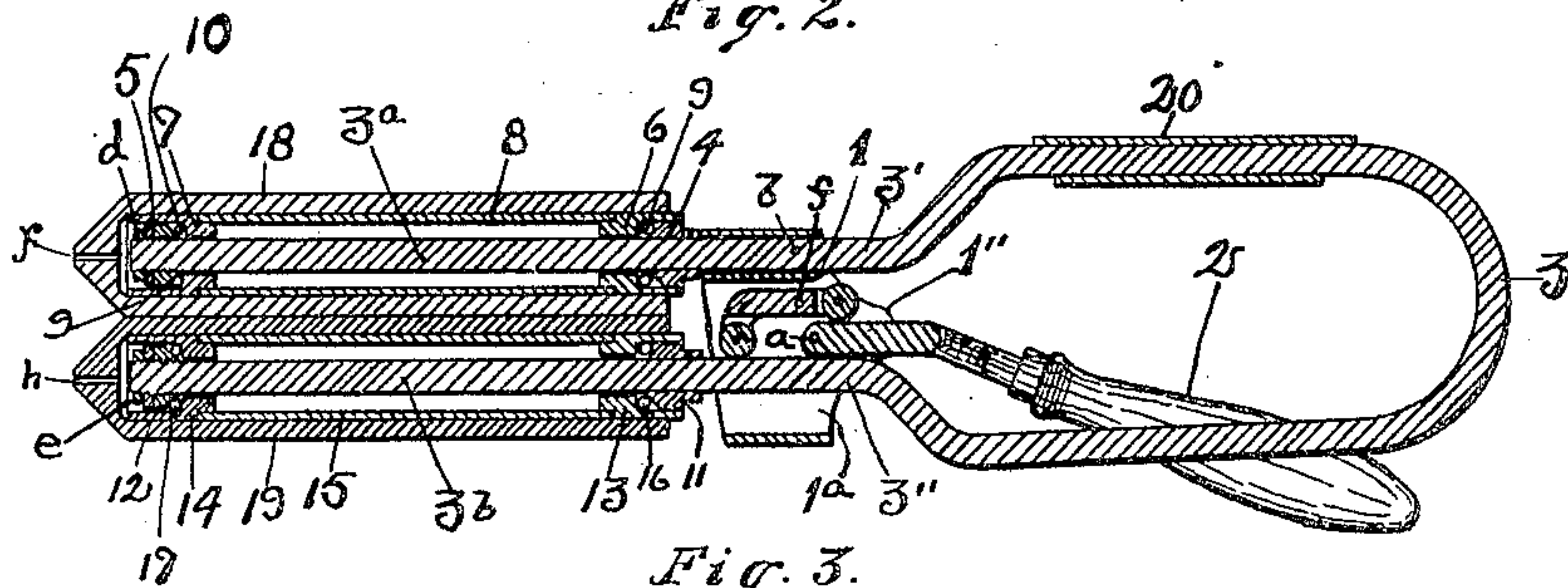


Fig. 3.

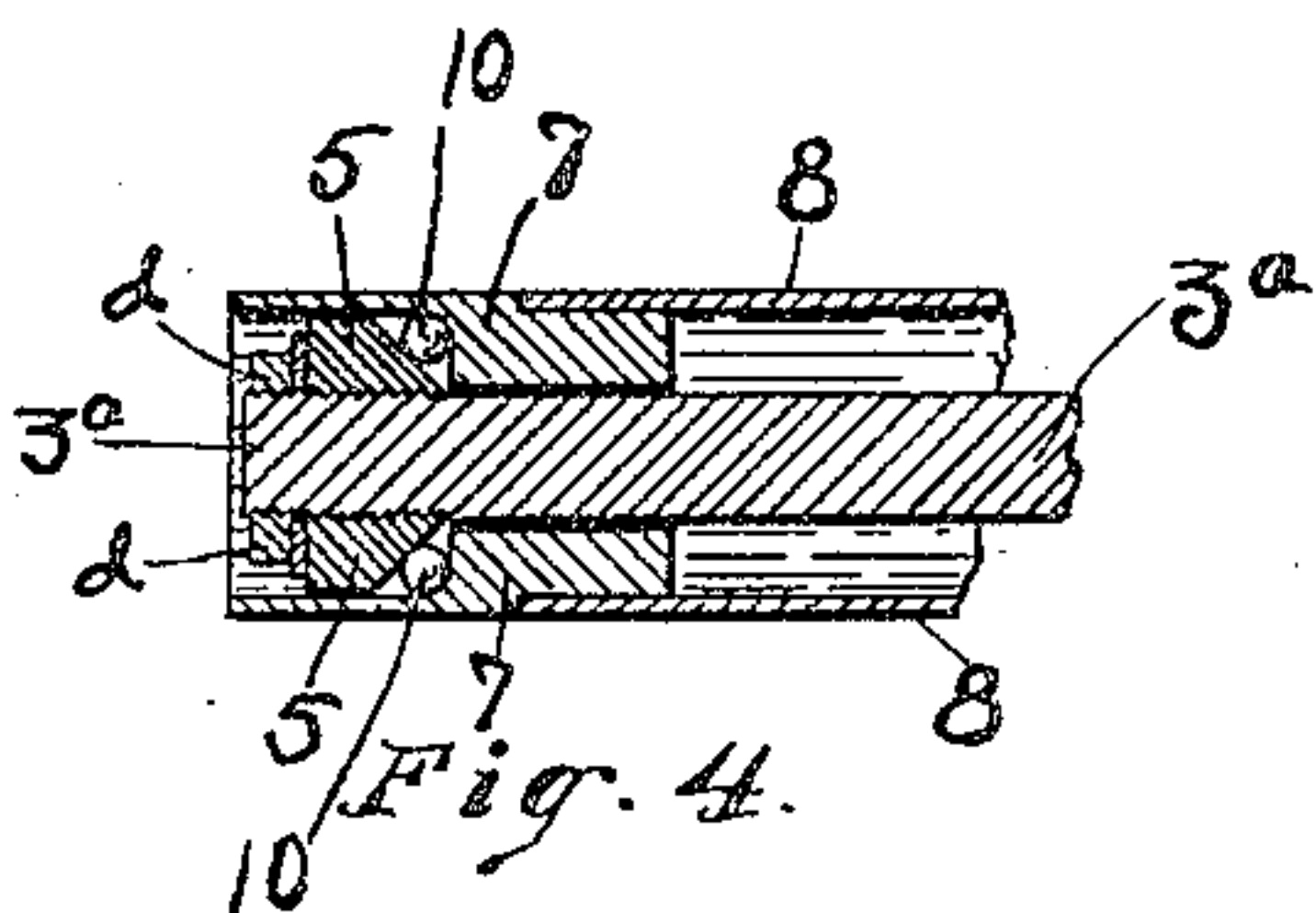


Fig. 4.

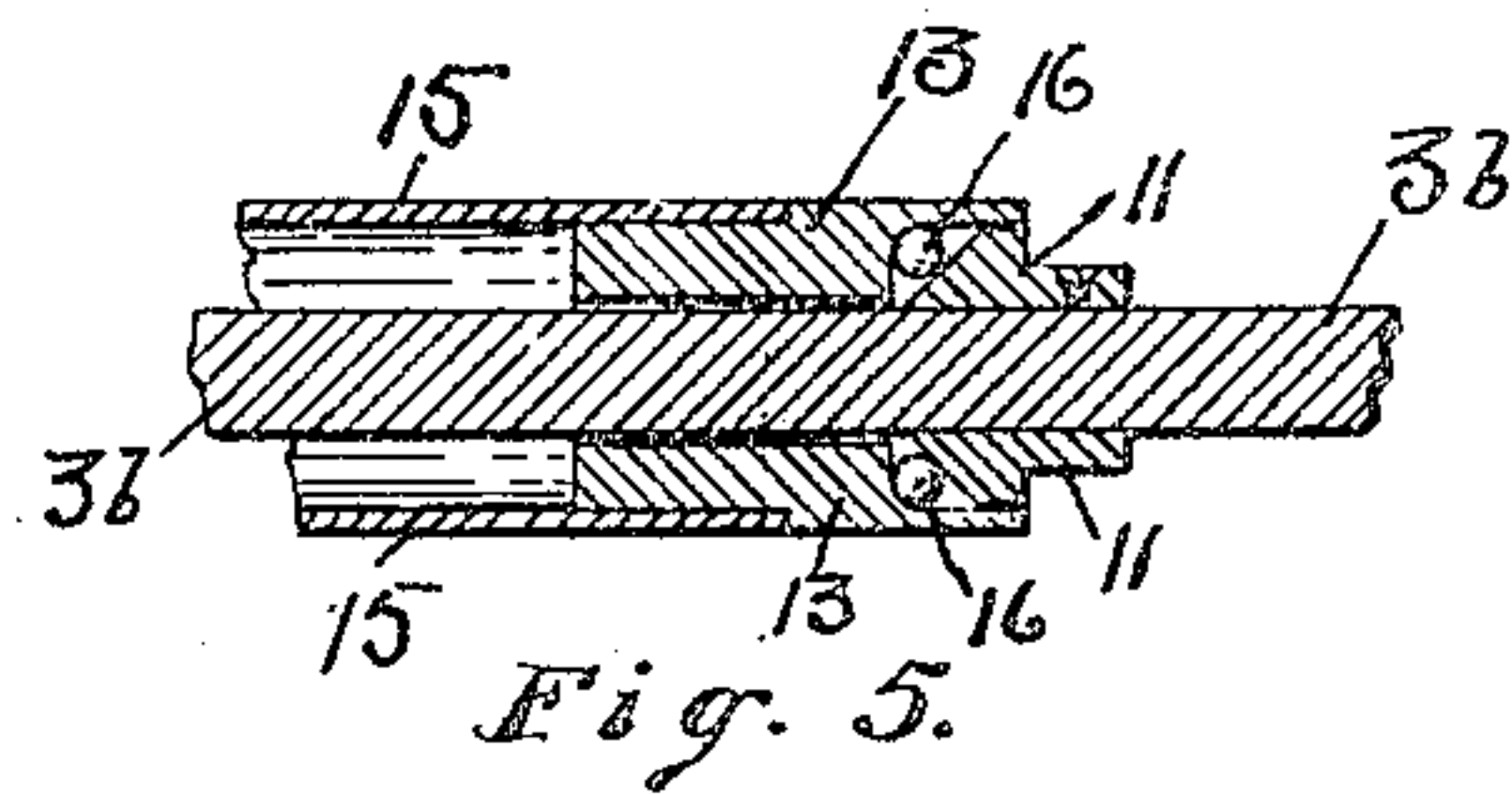


Fig. 5.

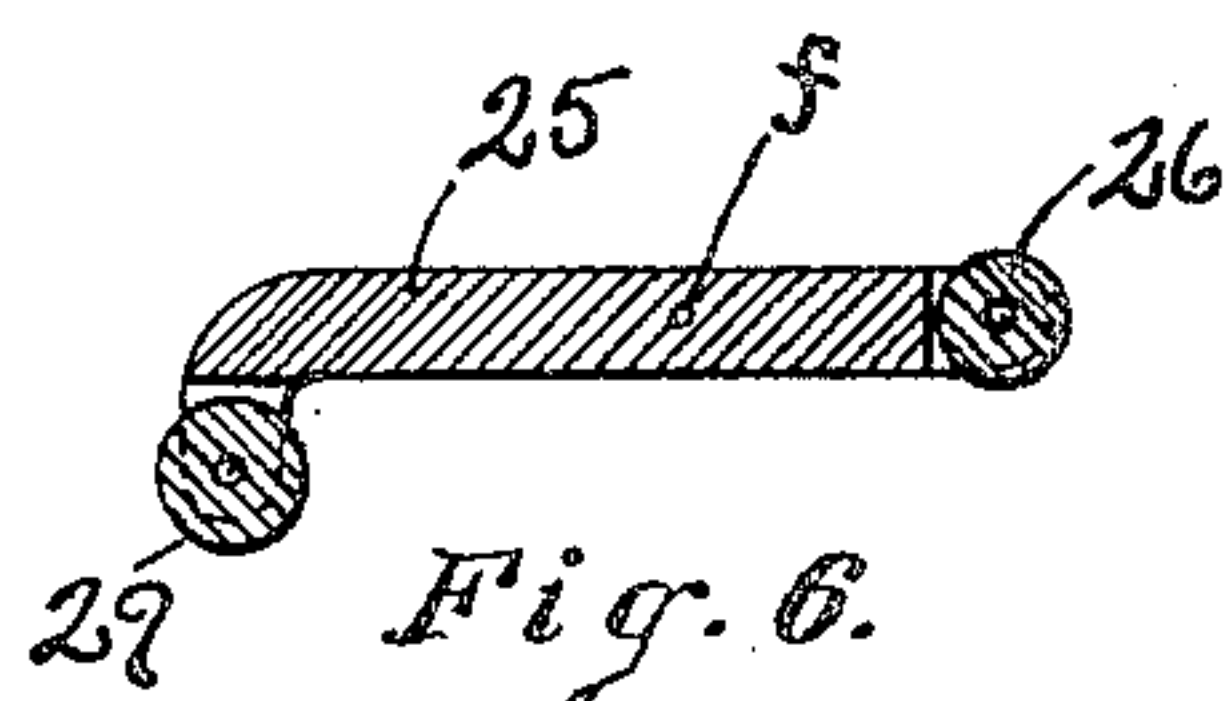


Fig. 6.

WITNESSES

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HAIR-DRIER.

No. 808,645.

Specification of Letters Patent.

Patented Jan. 2, 1906

Application filed April 18, 1905. Serial No. 256,212.

To all whom it may concern:

Be it known that I, FANNIE S. EMMONS, a citizen of the United States, residing in the city of Richmond, county of Wayne, and State of Indiana, have invented new and useful Improvements in Hair-Driers, of which the following is a full, clear, and exact description, and which contains certain specific improvements over that contained in Letters Patent numbered 756,842, issued to me under date of April 12, 1904.

The objects of this invention are broadly stated in my former patent above designated, and the specific objects are, first, to provide a ball-bearing hair-drier in which the rollers will revolve frictionless, whereby a greater pressure may be exercised to compress the hair without appreciably greater exertion on the part of the operator and with less liability of pulling or damaging the hair, and, second, to incorporate certain details of construction whereby I improve the various parts in order to increase the general appearance and the operation of the device without a material increase in the cost of production.

My present invention is shown most clearly in the accompanying drawings, in which—

Figure 1 is a side elevation of the entire device closed. Fig. 2 is a side elevation of the entire device open. Fig. 3 is a central longitudinal section of the entire device. Fig. 4 is a detail view showing an enlarged view of the outer portion of the body of one of the rollers, taken as a central longitudinal section. Fig. 5 is a detail view showing an enlarged view of the inner portion of the body of one of the rollers, also taken as a central longitudinal section; and Fig. 6 is a detail view of the dog.

Similar indices refer to and denote like parts throughout the several views.

I will now take up and describe the several parts of the invention as briefly and compactly as I may.

In this my preferred construction the numeral 1 designates the body of the device, which, as before, I prefer to form of an integral piece of material like unto a pair of plates spaced apart, joined between upper and lower webs, and having the ears 1' and 1'' extending handleward, between which plates the operating-lever 2 is pivotally mounted by the pivot *a*, as shown, and which will presently be more fully described. The upper web extends into and approximately fills one-fourth of the space 1^a in the body 1, as shown in Fig.

3, and formed longitudinally through said upper web parallel with the space 1^a is an aperture to neatly receive the body portion 3' of the spring-wire, which is secured therein at the proper point by the rivet *b*, which passes therethrough and through the body 1.

The numeral 3 denotes the handle portion, formed of spring-wire bent into substantially the form shown, forming two parallel side portions, uniting, as shown, and being widely separated, and then forming the two body portions 3' and 3'' and terminating in finger portions 3^a and 3^b, which project from the opposite side of the body 1, the body portion 3'' being free to be moved up and down in the space 1^a, as indicated in Fig. 3. The handle portion 3, the body portions 3' and 3'', and the body portions 3^a and 3^b are formed of an integral length of comparatively heavy spring wire or rod of a resiliency such as to incline to keep the finger portions 3^a and 3^b tightly in contact.

Secured around the finger 3^a, adjoining the member 1, is a sleeve 4, having a forward beveled end same as shown in Fig. 5, the purpose of which will presently appear. Threaded on the forward end of the finger 3^a is a sleeve 5, having a rearward beveled end, as shown in Fig. 4, and said sleeve may be more permanently secured by the lock-nut or washer *d*, the purpose of which will presently appear. Revolvably mounted on the finger 3^a is the thimble 6, having a rearwardly-extending cavity portion to extend over the sleeve 4 and which has an interior shoulder facing the beveled end portion of said sleeve 4. Revolvably mounted on the finger 3^a is the thimble 7, identical with but oppositely disposed to the thimble 6, having a forwardly-extending cavity portion that extends over the sleeve 5 and with an interior shoulder facing the beveled end portion of said sleeve 5. Uniting the thimbles 6 and 7 and separating them some distance apart is the tube 8, which is let in flush therewith, as shown, and the length of tube 8 is such as to allow a space between the sleeve 4 and the thimble 6 and between the sleeve 5 and the thimble 7, in which spaces are placed a plurality of balls 9 9 and 10 10, respectively, thereby forming a ball-bearing roller mounted on, around, and parallel with the finger 3^a.

Secured around the finger 3^b, near the body 1 and immediately below the sleeve 4, is the sleeve 11, having a forward beveled end same as the sleeve 4 and as shown in Fig. 5, the

purpose of which will presently appear. Threaded on the forward end of the finger 3^b is a sleeve 12, having a rearward end same as shown in Fig. 4 and identical with the sleeve 5, and said sleeve may be more permanently secured by the lock-nut or washer *e*. Revolvably mounted on the finger 3^b is the thimble 13, having a rearwardly-extending cavity portion to extend over the sleeve 11 and with an interior shoulder facing the beveled end portion of the said sleeve 11. Revolvably mounted on the finger 3^b is the thimble 14, identical with but oppositely disposed to the thimble 13, having a forwardly-extending cavity portion to extend over the sleeve 12 and with an interior shoulder facing the beveled end portion of said sleeve 12. Uniting the thimbles 13 and 14 and separating them some distance apart is the tube 15, which is let in flush therewith, as shown, and the length of the tube 15 is such as to allow a space between the sleeve 11 and the thimble 13 and between the sleeve 12 and the thimble 14, in which spaces are placed a plurality of balls 16 16 and 17 17, respectively, thereby forming a ball-bearing roller mounted on, around, and parallel with the finger 3^b.

The numeral 18 denotes a rubber sleeve having an outer acuminate closed end and having an interior space slightly less than the diameter of the tube 8, over which it is forced expansively and which it covers, as shown, and extending into the interior space of said rubber sleeve in an axial direction from the point is an aperture through which lubricants may be admitted to the interior parts.

The numeral 19 denotes a rubber sleeve having an outer acuminate closed end and having an interior space slightly less than the tube 8, over which it is forced expansively and which it covers, as shown, and extending into the interior space of said rubber sleeve in an axial direction from the point is an aperture *h*, through which lubricants may be admitted to the interior parts.

The operating-lever 2, above referred to, is pivoted in the body 1 by the pivot *a*, whereby the handhold portion extends back and slightly to one side, where it may be freely operated.

Pivoted in the space 1^a of the body 1 is the dog 25, mounted on the pivot *f*, substantially as shown. Mounted on the rear end of the dog 25 is the roller 26, adapted to contact with the upper surface of the inner portion of the lever 2. Mounted in the forward downwardly-extending end of the dog 25 is the roller 27, which is adapted to contact with the inner surface of the body portion 3'', as shown in Fig. 6.

Secured on the outer surface of the upper portion of the handle is a hand-plate 20 to provide a bearing-surface for the hand in holding the device.

From the above it is apparent that the

rollers are perfectly balanced and are practically frictionlessly mounted for revolution on their respective fingers and that by reason of the torsion of the material of which the handle and the fingers are composed the rubber sleeves 18 and 19 are normally retained tightly in contact; but they may be separated some distance apart by grasping the handle, allowing the palm of the hand to rest against the hand-plate 20, and then pulling upward on the lever 2 with one or more fingers of the hand to the position shown in Fig. 2, in which last designated position the hair to be dried may be inserted between the rubber sleeve, after which the lever 2 is released, allowing the rubber sleeve to clamp the hair, and then by moving the device away from the head the hair thereof will pass therebetween with tension sufficient to remove the moisture therefrom.

I desire that it be understood that I do not limit this invention to the precise details of construction which are herein specifically set forth; but I desire that my invention cover such details as would naturally suggest themselves to an ordinary mechanic.

Having now fully shown and described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. A hair-drier of the character described having in combination a body portion, a U-shaped spring member attached to the same forming fingers and a handle portion, a rubber-covered roller mounted on each finger, antifriction-bearings therefor, a lever pivoted to the body portion and bearing on one of the fingers to separate the fingers, and a hand-plate attached to one member of the handle, substantially as described.

2. A hair-drier of the character described having in combination a body portion, a spring member extending through the body portion forming fingers and a handle portion, a rubber-covered roller mounted revolvably on each finger, antifriction-bearings therefor, means for admitting lubricants to the interior parts, a lever pivoted to the body portion and bearing on one of the fingers to separate the fingers when desired, and a hand-plate attached to one member of the handle, all substantially as described.

3. A hair-drier of the character described having a body portion, a spring member formed U-shaped and extending through said body portion, one arm thereof secured in the body portion and the other arm thereof having a limited movement in the body portion, said spring member forming two parallel fingers on one side of the body and a handle on the opposite side of the body, a hand-plate secured to the handle, a rubber-covered roller revolvably mounted on each of said fingers, and a pair of antifriction-bearings for each of said rollers, all substantially as shown and described.

4. A hair-drier comprising a body portion,
a U-shaped member forming a handle a mov-
able finger and a stationary finger, a pair of
sleeves—having facing bevel ends—secured
5 on the extremities of each finger, a pair of thim-
bles for each finger having faces correspond-
ing to the faces of the sleeves, a tube sur-
rounding each finger and connecting the re-
spective pairs of thimbles, a plurality of balls
10 located between the bevel-faces of the sleeves
and the thimbles, a rubber sleeve—having an

outer acuminated end—for each finger cover-
ing the said tubes and inclosing its respective
finger portion, all substantially as and for
the purposes set forth.

In testimony whereof I have signed my
name to this specification in the presence of
two subscribing witnesses.

FANNIE S. EMMONS.

Witnesses:

A. M. GARDNER,
L. M. EMMONS.