

J. A. HARRINGTON.
 RAZOR STROPPING DEVICE.
 APPLICATION FILED JUNE 30, 1910.

986,564.

Patented Mar. 14, 1911

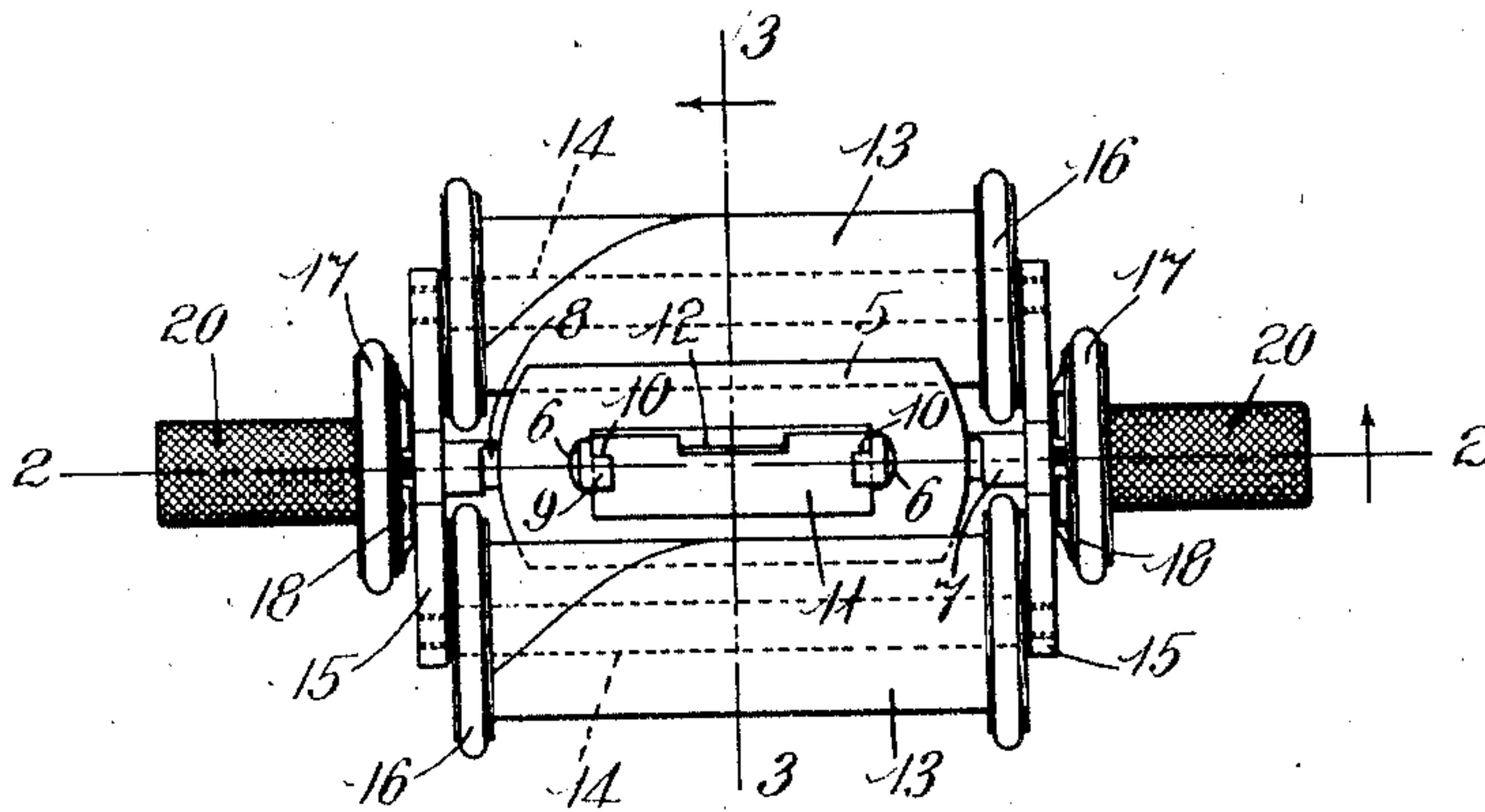


Fig. 1.

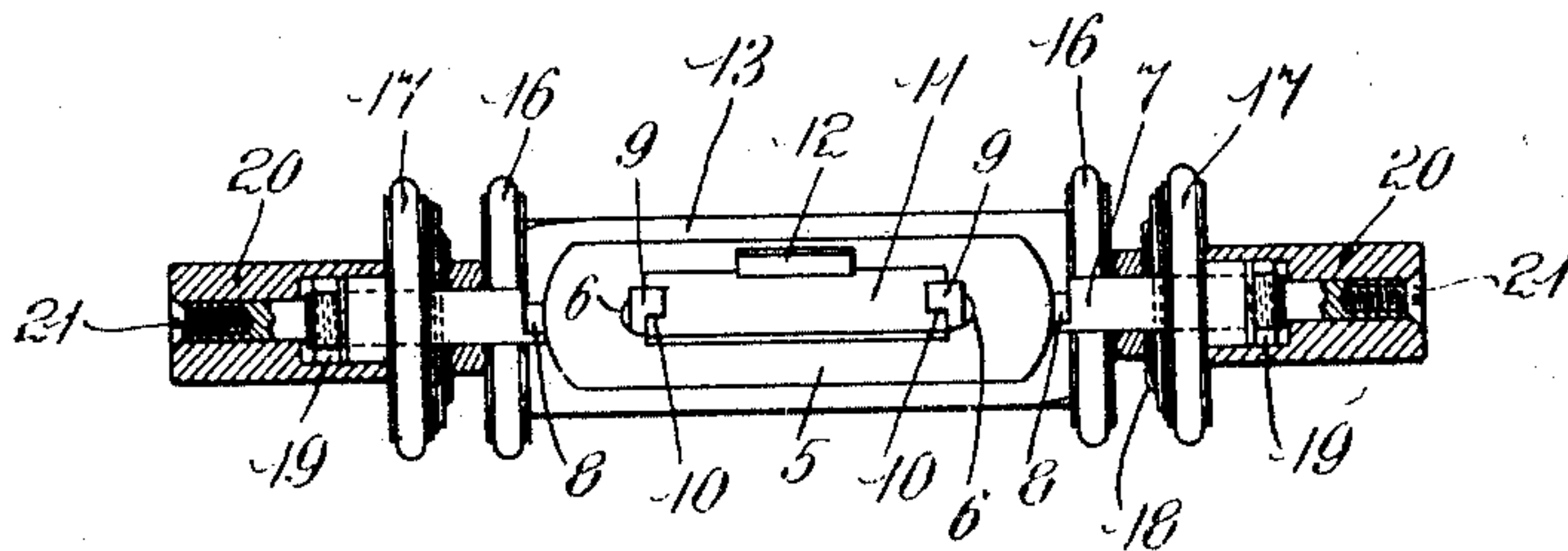


Fig. 2.

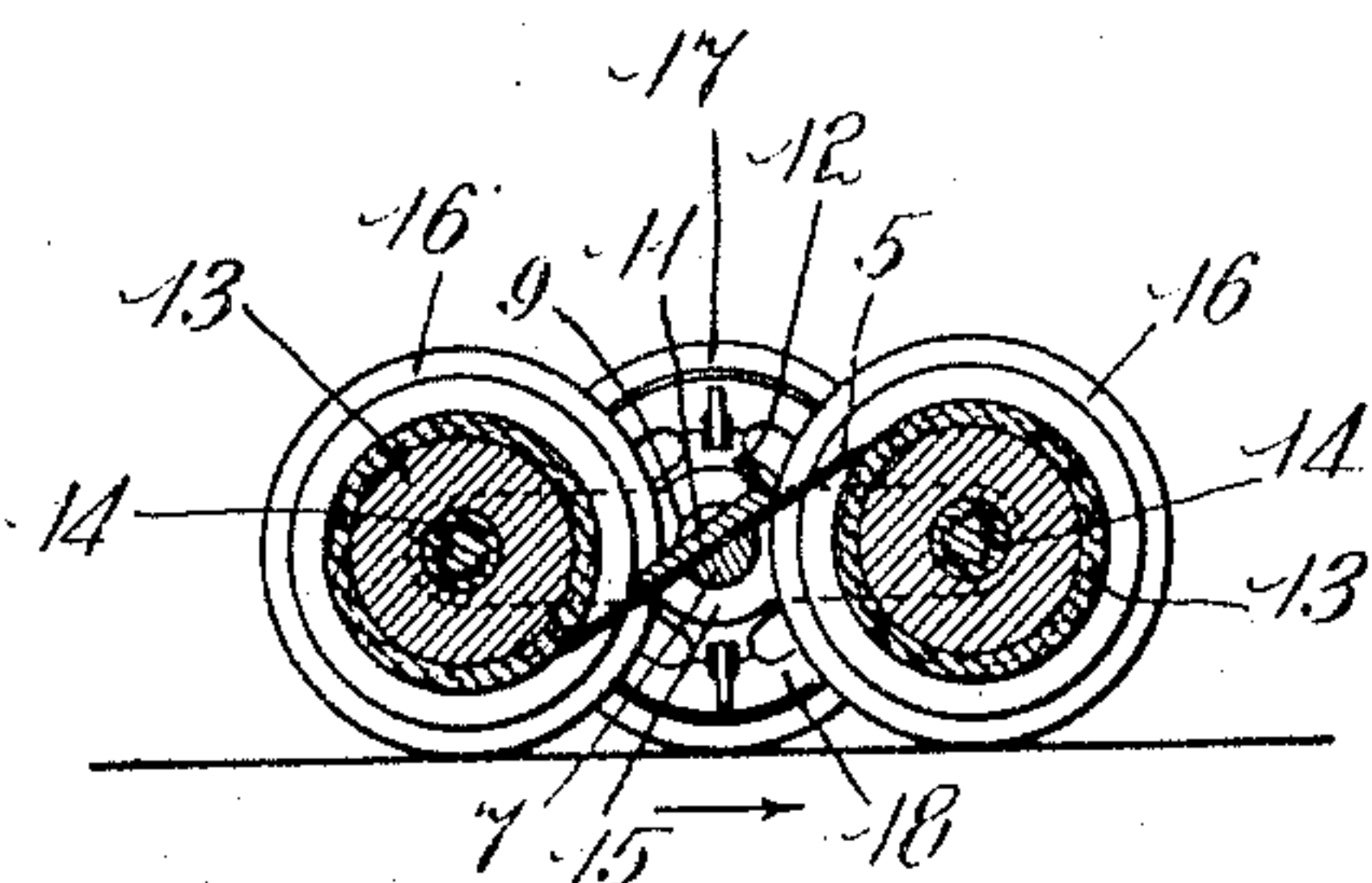


Fig. 3.

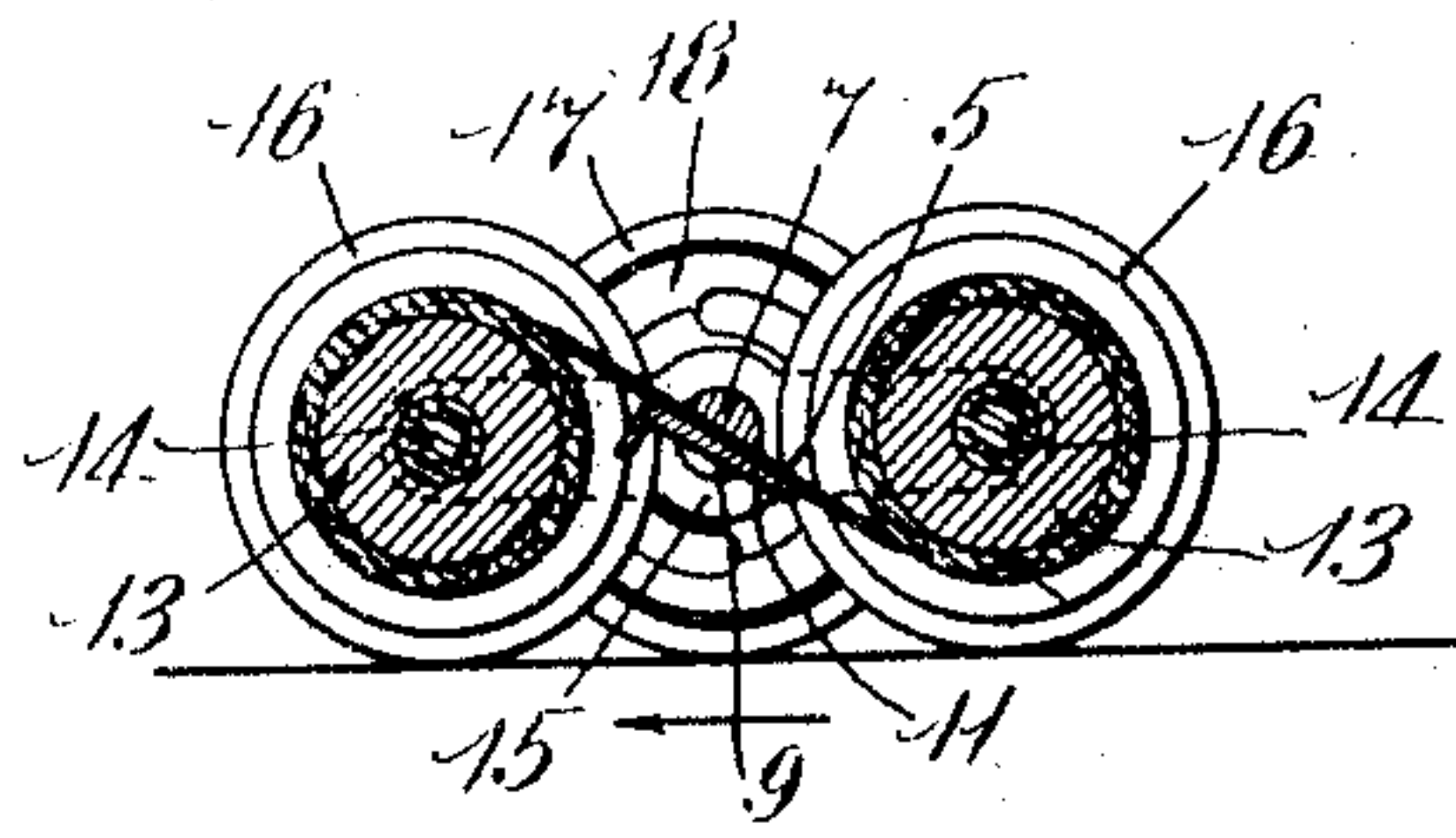


Fig. 4.

Witnesses.
 Sydney E. Taft
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 Joseph A. Harrington,
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UNITED STATES PATENT OFFICE.

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RAZOR-STROPPING DEVICE.

986,564.

Specification of Letters Patent.

Patented Mar. 14, 1911.

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To all whom it may concern:

Be it known that I, JOSEPH A. HARRINGTON, a citizen of the United States, residing at South Boston, in the county of Suffolk and State of Massachusetts, have invented new and useful Improvements in Razor-Stropping Devices, of which the following is a specification.

This invention relates to improvements in razor stropping devices of that class in which the stropping surface consists of a drum or drums having a suitable covering and while the embodiment of my invention shown in the accompanying drawings is adapted for the stropping of safety razor blades and particularly double edged blades, the device is readily adaptable to blades of other classes.

The object of my invention is to provide a simple, convenient and effective stropping device by means of which a blade may be stropped by rolling the device to and fro across a suitable surface, thereby carrying the blade into and out of contact with the drum or drums.

The object is further to provide simple and convenient means for holding the blade during the stropping operation.

My invention consists in the novel features of construction and in the combination and arrangement of parts set forth in the following specification and particularly pointed out in the claims.

Referring to the drawing: Figure 1 is a plan of a stropping device embodying my invention. Fig. 2 is a sectional view taken on line 2—2 of Fig. 1. Fig. 3 is a sectional view taken on line 3—3 of Fig. 1, looking toward the left. Fig. 4 is a sectional view similar to Fig. 3, showing the blade in the reverse position from that shown in Fig. 3.

Like numerals refer to like parts throughout the several views of the drawing.

In the drawing, 5 is a razor blade which, in the present instance, is of the double edged safety razor class having a pair of perforations 6, 6. This blade is attachably and detachably attached to any suitable holder such, for example, as a shaft 7 provided with a flat face 8 against which one face of the blade 5 rests, said shaft having two lugs 9, 9 projecting from said face through the perforations 6, 6, respectively,

said lugs being, respectively, provided with recesses 10, 10 facing each other. Located in these recesses is a holding member 11 consisting of a plate tapered transversely thereof, as shown in Figs. 3 and 4, opposite ends of said plate being located in said recesses, respectively. This plate is provided with a lug 12 which serves as a handle by means of which the plate may be moved transversely thereof into and out of the recesses 10. It will be readily understood that by reason of the taper of this plate the blade may be firmly held against the flat face 8 of the shaft 7. When it is desired to remove the blade 5 from the holder, this is done by simply grasping the handle 12 and withdrawing the plate 11 from its place, after which the blade may be lifted from its place.

The shaft 7 is arranged to rock to and fro to carry the cutting edge or edges of the blade into and out of contact with a stropping drum or pair of drums and in the present instance I have shown a pair of drums 13, 13 having suitable stropping surfaces, these drums being respectively mounted on shafts 14, 14 terminating at opposite ends thereof in bearing plates 15, 15 which constitute also bearings for the rock shaft 7. Preferably, the shafts 14 loosely fit their bearings in the plates 15, 15 so that the whole structure is flexible to a certain extent and the blade 5 is permitted thereby to accommodate itself to the surfaces of the drums 13 so that the cutting edges will lie flat and bear with even pressure throughout upon the drums.

Each of the drums 13 is provided with a pair of traction flanges or wheels 16 which, in practice, are rubber tired. Similarly, the rock shaft 7 is equipped with a pair of traction wheels 17 journaled thereon and having frictional rotary driving connection therewith. As a means forming such frictional or slipping driving connection between the wheels 17 and the shaft 7, I provide a pair of suitable spring washers 18, 18 suitably secured to said shaft and bearing at their outer faces against the inner faces of the wheels 17, respectively.

In order that there shall be a proper frictional driving contact between the washers 18 and the wheels 17, I provide a pair of ad-

justing nuts 19, 19 having screw-threaded engagement with the shaft 7, as clearly shown in Fig. 2, whereby said wheels may be forced against their respective washers.

5 In order that the device may be conveniently operated by rolling the same to and fro along a suitable support, I provide a suitable handle or handles and in the present instance, I have provided a pair of handles
10 20, 20 journaled on opposite ends, respectively, of the shaft 7 and held in place by screws 21, 21, respectively. In practice, these handles are knurled, as shown in Fig. 1, to afford a good grip and when the device
15 is operated each handle is grasped with the thumb and forefinger of one hand and the device is placed upon a suitable flat surface, as shown in Figs. 3 and 4, with all of the traction wheels resting upon said surface, it
20 being noted that all of the wheels are of substantially the same diameter.

Assuming the parts to be in the position shown in Fig. 3, the operator, grasping the handles, presses the traction wheels firmly
25 into contact with the supporting surface and moves the device toward the right, it being evident that the drums 13 will rotate in contact with the beveled edge of the blade 5 upon opposite faces, respectively, of said
30 blade. After the device has been carried as far as desired, its direction of movement is reversed and owing to the frictional driving connection between the traction wheels 17 and the shaft 7, the rotation of said
35 wheel instantly rotates the shaft 7 in unison therewith until the blade occupies the position shown in Fig. 4 in contact with the stopping drums, whereupon continued movement of the device in the same direc-
40 tion causes the edges of the blade to be firmly held against the surfaces of the drums while said drums are rotated, the degree of pressure with which the blade bears against the drums being determined by the
45 tension of the spring washers 18.

A few reciprocations of the device will suffice to produce upon both edges of the blade a very keen, smooth edge, the effect of which is increased by the curvature of
50 the drums which tend to make a thinner edge than a flat stop.

Having thus described my invention, what I claim and desire by Letters Patent to secure is:

55 1. A stopping device having, in combination, a journaled drum, a blade holder mounted to rock about an axis to carry the blade to and fro into and out of contact with said drum, and a traction wheel hav-
60 ing frictional rotary driving connection with said holder.

2. A stopping device having, in combination, a journaled drum, a blade holder mounted to rock about an axis to carry the
65 blade to and fro into and out of contact

with said drum, and a traction wheel journaled on said blade holder.

3. A stopping device having, in combination, a journaled drum, a blade holder mounted to rock about an axis to carry the
70 blade to and fro into and out of contact with said drum, a traction wheel and means forming a slipping driving connection between said wheel and said holder.

4. A stopping device having, in combination, a journaled drum, a blade holder mounted to rock about an axis to carry the blade to and fro into and out of contact with said drum, and a pair of traction
75 wheels having frictional rotary driving connection with said holder adjacent to opposite ends, respectively, thereof.

5. A stopping device having, in combination, a journaled drum, a blade holder mounted to rock about an axis to carry the
80 blade to and fro into and out of contact with said drum, a pair of traction wheels having frictional rotary driving connection with said holder, and a handle by means of which said drum and said traction wheel
85 may be rolled to and fro along a suitable surface.

6. A stopping device having, in combination, a journaled drum, a blade holder mounted to rock about an axis to carry the
90 blade to and fro into and out of contact with said drum, a pair of traction wheels having frictional rotary driving connection with said holder, and a handle journaled on said blade holder.

7. A stopping device having, in combination, a journaled drum, a blade holder mounted to rock about an axle to carry the blade to and fro into and out of contact with
100 said drum, a pair of traction wheels having frictional rotary driving connection with said holder, and a pair of handles journaled on opposite ends, respectively, of said blade holder.

8. A stopping device having, in combination, a journaled drum having a pair of traction flanges, a blade holder mounted to rock about an axis to carry the blade to and
110 fro into and out of contact with said drum, and a pair of traction wheels having frictional rotary driving connection with said holder.

9. A stopping device having, in combination, a pair of journaled drums, a blade holder mounted to rock about an axis between said drums to carry the blade to and
120 fro into and out of contact with said drums alternately, and a traction wheel having frictional rotary driving connection with said holder.

10. A stopping device having, in combination, a pair of journaled drums, a blade holder mounted to rock about an axis between said drums to carry the blade into
125 and out of contact with said drums, alter-

nately, a traction wheel having frictional rotary driving connection with said holder, and means connecting said holder to said drums permitting the blade to accommodate itself to the surfaces of said drums.

11. In a stropping device, the combination with a blade provided with a pair of perforations, of a blade holder having a pair of lugs provided with lateral recesses facing each other, and a holding member extending at its opposite ends into said recesses and bearing against said blade.

12. In a stropping device, the combination with a blade provided with a pair of perforations, of a blade holder having a pair of lugs provided with lateral recesses facing each other, and a plate having its op-

posite ends arranged to slide into and out of said recesses, transversely of said holder.

13. In a stropping device, the combination with a blade provided with a pair of perforations, of a blade holder having a pair of lugs provided with lateral recesses facing each other, and a transversely tapered plate having its opposite ends arranged to slide into and out of said recesses, transversely of said holder.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JOSEPH A. HARRINGTON.

Witnesses:

EDWARD L. HOPKINS,
EDWARD L. FARRELL.