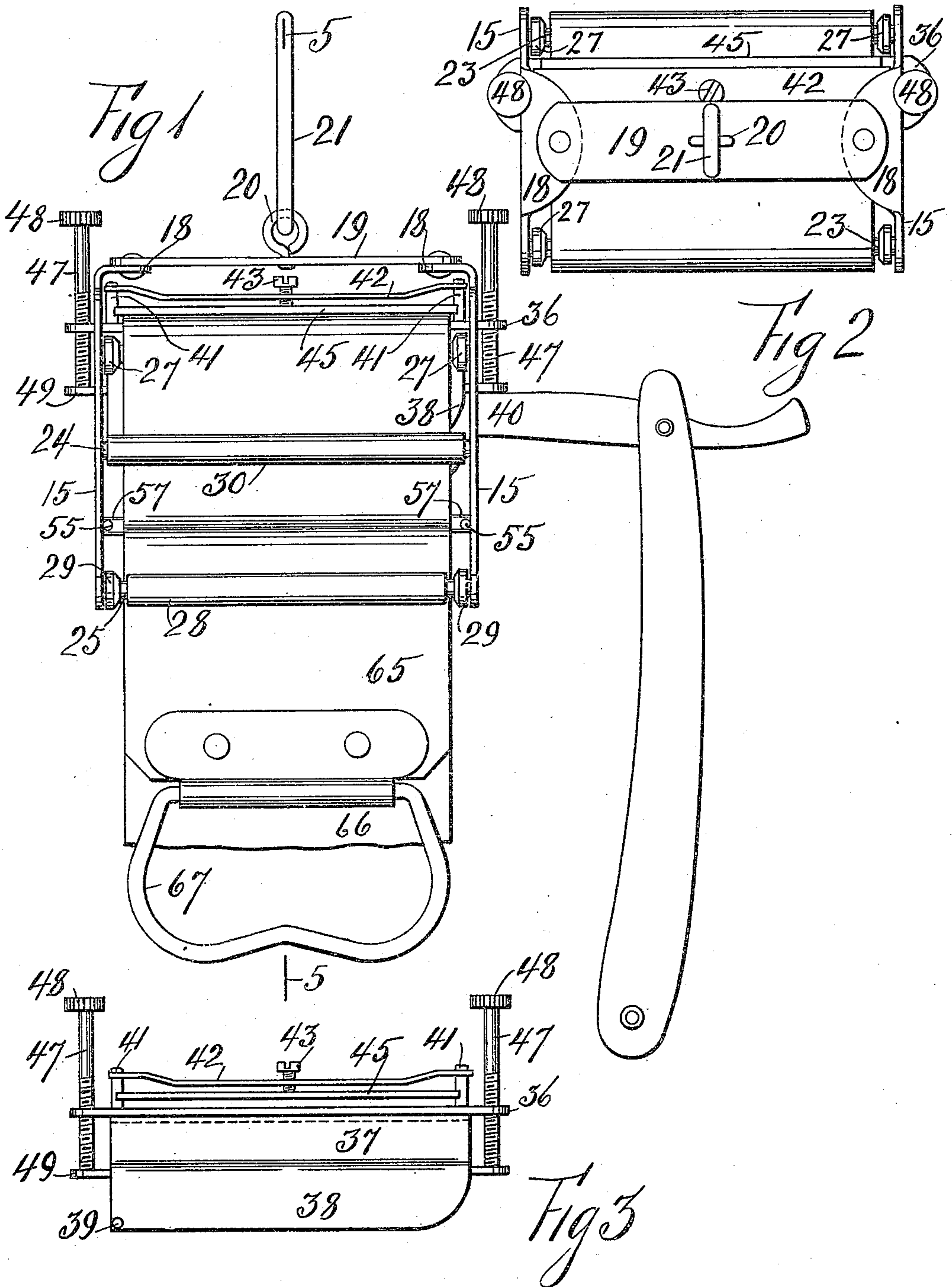


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RAZOR STROPPING DEVICE.
APPLICATION FILED FEB. 8, 1909.

962,190.

Patented June 21, 1910.

2 SHEETS—SHEET 1.



Witnesses
Martin Zimanoky.
Geo. C. Eskholme.

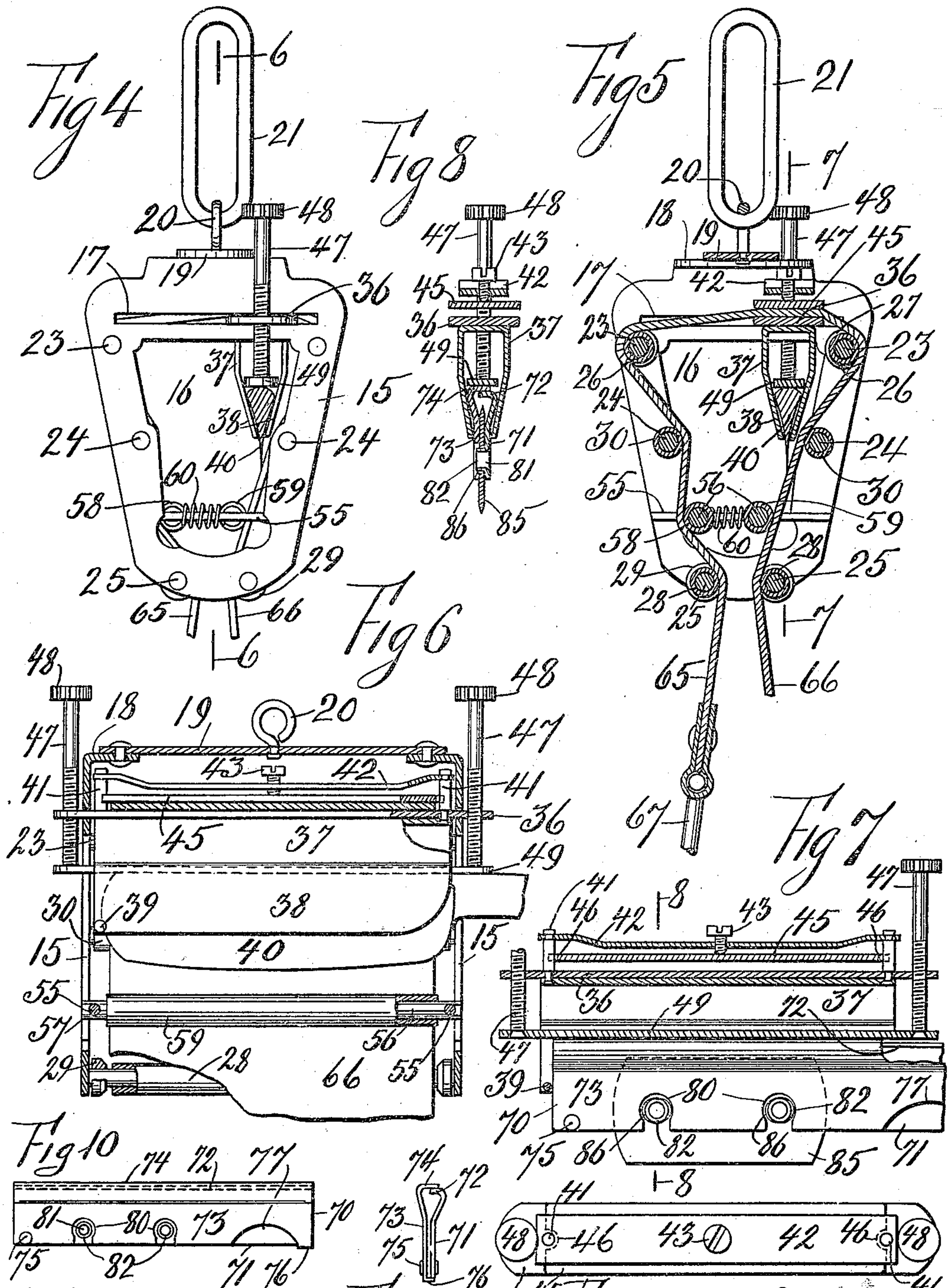
Inventor
Charles Frederick Benedict
By his Attorney
A. L. Borneville

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UNITED STATES PATENT OFFICE.

CHARLES FREDERICK BENEDICT, OF BROOKLYN, NEW YORK, ASSIGNOR TO SAMUEL KANNER, OF NEW YORK, N. Y.

RAZOR-STROPPING DEVICE.

962,190.

Specification of Letters Patent. Patented June 21, 1910.

Application filed February 8, 1909. Serial No. 476,776.

To all whom it may concern:

Be it known that I, CHARLES FREDERICK BENEDICT, a citizen of the United States, and a resident of the borough of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in a Razor-Stropping Device, of which the following is a specification.

This invention relates to a razor stropping device. Its organization comprises essentially a frame or holder in which are formed guides for a blade carriage, and a presser plate located over the carriage which secures a strop in frictional engagement therewith. The strop on each side of the carriage is guided over guide rollers in the frame, so that by alternately pulling the ends of the strop the carriage is translated and reciprocated from one side to the other of the said frame or holder.

This invention is an improvement of the application for a razor stropping device filed July 17, 1907, Serial Number 384,153, and differs from said application essentially in the construction of the blade carriage with its means for securing a blade therein, and the construction of the guide rollers of the frame or holder.

With the carriage of the present invention are formed jaws that can hold an ordinary razor blade, or a supplemental blade holder for securing the blade of what is known as a safety razor. A strop adjuster is connected with the frame, so that when the carriage is translated and reciprocated by alternately pulling the ends of the strop, the leg of the strop that is adjacent to the blade is pushed from and clear of the same, before the blade is moved. The friction of the strop between the blade carriage and the presser plate translates and reciprocates the carriage, which causes the opposite sides of the blade to alternately come in the path of the opposite legs of the strop. The relation of the parts is such that the strop when in contact with the blade, moves downwardly against the opposite sides thereof.

In the drawings Figure 1 shows a side elevation of the invention with a razor, Fig. 2 represents a top view of the invention, Fig. 3 shows a front elevation of a blade carriage, Fig. 4 is a partial right hand side view of Fig. 1 with a cross sectional view of the razor blade, Fig. 5 represents a partial section as on the line 5, 5 of Fig. 1, Fig.

6 shows a section of Fig. 4 on line 6, 6, Fig. 7 shows a section of the blade carriage as on the line 7, 7, of Fig. 5 with a portion of a supplemental blade holder and its blade, Fig. 8 is a section of Fig. 7 on the line 8, 8, Fig. 9 is a partial top plan view of Fig. 7, Fig. 10 is a front view of a supplemental blade holder and Fig. 11 is an enlarged end view of Fig. 10.

The invention is shown to consist of a frame or holder with the sides 15 having the main central openings 16, the guide openings 17, and the upper legs 18 at right angles thereto. An upper connecting plate 19 joins the said legs 18, and a hook 20 for the handle 21 extends from said plate 19. Upper tie rods 23, central tie rods 24 and lower tie rods 25 connect the sides 15 of the frame. Guide rollers 26 and flange rollers 27, guide rollers 28 and flange rollers 29, are respectively journaled on the upper tie rods 23 and the lower tie rods 25, while on the central tie rods 24 are journaled the guide rollers 30.

The blade carriage of the invention comprises the cross-head 36 the ends of which project through and are guided in the openings 17 of the sides 15. A housing 37 with the spring jaws 38 at the lower end thereof is secured to and extends below the cross-head 36. The jaws are connected at one end by a stop 39 and secure the blade 40 of a razor. A pair of posts 41 extend up from the cross-head 36, and at the upper ends of said posts are fastened the ends of a spring 42, the central portion of which latter has a threaded opening for the adjusting screw 43.

Between the cross-head 36 and the spring 42 is located a presser plate 45, which latter has the circular notches 46, by virtue of which it is held in proper position by the posts 41. The ends of the cross-head 36 have threaded openings for the adjusting screws 47 with the knurled heads 48, and the lower ends of said screws are rotatably joined with the adjusting bar 49, that extends through the housing 37.

Guide rods 55 extend between the legs of the sides 15 on which are carried the adjusting rods 56, by virtue of their forked ends 57 straddling the rods 55. On the adjusting rods 56 are journaled the adjusting rollers 58 and 59, and between each pair of accompanying forked ends 57 of the rods 56 there is located a separating spring 60,

the ends of which latter are secured to said forked ends 57. The rods 56, rollers 58, 59 and springs 60 constitute a strop adjuster.

A strop with the legs 65, 66 and handles 67, is connected with the invention. The strop is located between the upper face of the cross-head 36 and the lower face of the presser plate 45. The legs of the strop respectively bear on the outer faces of the guide rollers 26 and adjusting rollers 58, 59 and also bear on the inner faces of the guide rollers 30 and 28.

In Figs. 7, 8, 10 and 11, a supplemental blade holder 70 is shown located and supported in the housing 37 of the blade carriage. The supplemental blade holder comprises the member 71, with the crown 72, and the member 73 with the crown 74, the crown 74 bearing on the crown 72. The said members are joined by the rivet pin 75. The member 73 has the flange 76 which abuts against the lower edge of the member 71 to lock the members together. In the member 73 is formed a recess 77, so that the members can be swung apart on the pin 75. In the member 73 are formed openings 80, and in the member 71 are formed openings 81 with the projecting sleeves 82. The openings 80 of the member 73 are somewhat larger than the outside diameters of the projecting sleeves 82 of the member 71. A safety razor blade 85 with the openings 86 is located between the members 71 and 73, the projecting sleeves 82 engaging the openings 86 of the said blade 85.

To use the invention with an ordinary razor blade, the holder is suspended by means of the handle 21 and the razor blade 40 is inserted between the jaws 38 of the housing 37, the adjusting bar 49 being lowered to bear against the back or crown of the blade, by turning the adjusting screws 47. The operator then alternately pulls the handles 67 of the legs 65 and 66 of the strop through the opening between the cross-head 36 and the presser path 45, by virtue of which the blade carriage with the housing 37 will be moved to the opposite sides of the frame or holder, so that each side and edge of the razor blade 40 will be brought to bear against the strop as the latter is being pulled by the operator. The function of the strop adjuster is to clear the razor blade 40, from the leg of the strop to which it is adjacent, before the razor blade with its carriage recedes therefrom.

When the blade carriage with its blades is adjacent to one of the legs 66 of the strop as is plainly shown in Fig. 5, the first effect of pulling the other leg 65 of the strop is to clear the razor blade 40 from the leg 66, by virtue of the action of the strop adjuster. The leg 65 in such a case will bear against the roller 58 adjacent thereto, and moves it on the guide rods 55 toward the other roller

59, compressing the springs 60 by reason of which the roller 59 will bear against the leg 66 of the strop and push it away and clear of the razor blade, before the blade carriage begins to move away from said leg 66.

In case a special blade like 85 is to be stropped, it is secured between the members 71 and 73 of the supplemental blade holder, the projecting sleeves 82 engaging the openings 86 of the blade 85 and extending into the openings 80 of the member 73, the crown 74 bearing on the crown 72, and the flange 76 engaging the lower edge of the member 71. The supplemental blade holder with its blade is then inserted between the jaws 38 of the blade carriage, as already described when a regular razor blade is to be operated upon. If either the regular style razor blade or the supplemental blade holder is to be detached from the blade carriage, the adjusting screws 47 are turned, to disengage the adjusting bar 49 from the crown of the razor or top of the supplemental blade holder.

Having described my invention I claim—

1. In a stropping device the combination of a holder, a blade carriage to support an object to be stropped movably supported therein, a strop guided in the holder and bearing on the carriage and a presser plate bearing on the strop, an adjusting bar located within the blade carriage with its ends extending without the same, a pair of adjusting screws in threaded engagement with the blade carriage and connected with the adjusting bar.

2. In a stropping device the combination of a holder having guide openings, a blade carriage to support an object to be stropped, a cross-head on the carriage extending through the guide openings of the holder, screws in threaded engagement with the cross-head, an adjusting bar in the carriage connected with said screws and bearing on the object in the carriage, and a strop in frictional engagement with the carriage.

3. In a stropping device the combination of a holder, a blade carriage movably supported therein, adjusting screws carried by the carriage, an adjusting bar connected with said screws, a pair of columns extending from said blade carriage, a spring connecting the columns, an adjusting screw in threaded engagement with said spring, a presser plate below the spring and bearing up against the latter screw, and a strop between the roof of the carriage and presser plate.

4. In a stropping device the combination of a holder, a blade carriage to support an object to be stropped movably supported therein, a strop guided in the holder and in frictional engagement with the carriage and a strop adjuster connected with the holder.

5. In a stropping device the combination

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of a holder, a blade carriage to support a blade movably supported therein, a strop guided in the holder to reciprocate the carriage, a pair of guide rods connected to opposite sides of the holder, a pair of rollers movably connected with the said guide rods, one of said rollers in the path of one leg of the strop and the other roller in the path of the other leg thereof and a flexible medium between the rollers.

6. In a stropping device the combination of a holder, a blade carriage to support a blade movably supported therein, guide rollers in the holder, a strop in frictional engagement with the carriage and guided by said guide rollers, a flexible strop adjuster in the holder to push one leg of the strop away from the said blade, when pulling the other leg of said strop.

7. In a stropping device the combination of a holder, a blade carriage to support a blade movably supported therein, pairs of guide rollers in the holder, a strop in frictional engagement with the carriage and guided by said guide rollers, a guide rod connected with each side of the holder, a pair of rods with forked ends movably supported on the said guide rods, a guide roller on each of said rods separating the legs of the strop between two pairs of the guide rollers in the holder, to a greater distance than would be maintained by said guide rollers only, and a spring separating the accompanying ends of the rods with the forked ends.

8. In a stropping device the combination of a holder, a blade carriage to support an object to be stropped movably supported therein, guide rollers journaled between the sides of the holder, a strop in frictional engagement with the blade carriage and bearing on the guide rollers, flange rollers journaled at the opposite ends of the guide rollers for the strop.

9. In a stropping device the combination of a holder, a blade carriage movably supported therein, a strop in the holder and in frictional engagement with the carriage, a

supplemental blade holder in the blade carriage, an adjusting bar in the carriage, and means to force said bar against the supplemental holder.

10. In a stropping device the combination of a holder, a blade carriage movably supported therein, a strop guided in the holder and in frictional engagement with the carriage, a supplemental blade holder in the blade carriage, a pair of hinged members in the supplemental holder, a flange on one of the members engaging the lower edge of the other member, an adjusting bar in the blade carriage and means to force said bar against the crown of the said supplemental holder.

11. In a device of the character described, a frame, a reciprocating blade support mounted therein, a sharpening strop arranged to operate in said frame, and means to enable said strop to reciprocate said blade support to bring the opposite sides of the blade carried by said support into contact with said strop.

12. In a device of the character described, a frame comprising end plates having slots therein, a reciprocating bar mounted in said slots, a blade support carried by said bar, a strop, and means whereby said strop may reciprocate said bar from side to side to bring the opposite sides of the blade carried by said support alternately in contact with said strop.

13. In a device of the character described, a frame, a blade support having a reciprocating movement from side to side within said frame, a sharpening strop and operative connections between said strop and said blade support to reciprocate the latter to bring the opposite sides of the blade carried by said support alternately into engagement with said strop.

Signed at the borough of Manhattan in the county of New York and State of New York this 6th day of February A. D. 1909.

CHARLES FREDERICK BENEDICT.

Witnesses:

GEO. C. ESKHOLME,
MARTIN ZIMANSKY.