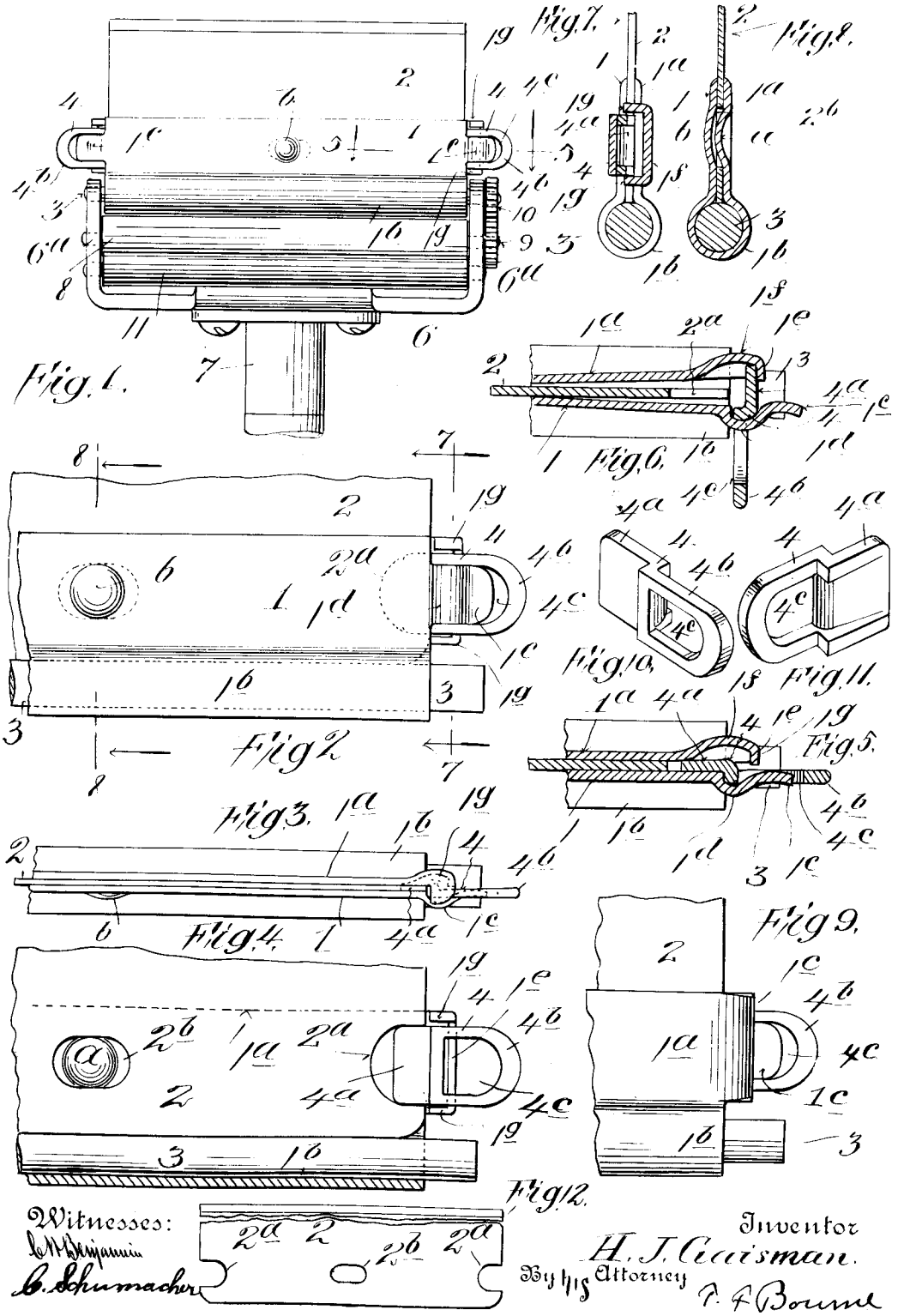
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BLADE HOLDER FOR SAFETY RAZORS.

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1,182,552. Patented May 9, 1916.



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UNITED STATES PATENT OFFICE.

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BLADE-HOLDER FOR SAFETY-RAZORS.

1,182,552. Specification of Letters Patent. Patented May 9, 1916.

Application filed April 27, 1912. Serial No. 693,618.

To all whom it may concern:

Be it known that I, HENRY J. GAISMAN, a citizen of the United States, and resident of New York city, borough of Manhattan, in the county of New York and State of New York, have invented certain new and useful Improvements in Blade-Holders for Safety-Razors, of which the following is a specification.

My invention relates to holders for blades, and has particular reference to detachably holding blades in safety razors.

The object of my invention is to provide improved means for securely retaining a razor blade in position in a holder and to permit ready removal of the blades from and their insertion into the holders.

My invention comprises novel details of improvement and combinations of parts that will be more fully hereinafter set forth and then pointed out in the claims.

Reference is to be had to the accompanying drawings forming part hereof, wherein,

Figure 1 is a face view of a safety razor provided with my improvements; Fig. 2 is an enlarged face view of a portion of the blade holder; Fig. 3 is an edge view of Fig. 2; Fig. 4 is a central sectional view of Fig. 3; Fig. 5 is a section on the line 5, 5, in Fig. 1; Fig. 6 is a view similar to Fig. 5, showing the holder expanded to admit or release a blade; Fig. 7 is a section on the line 7, 7, in Fig. 2; Fig. 8 is a section on the line 8, 8, in Fig. 2; Fig. 9 is a face view of a portion of the holder, looking from the opposite side of Fig. 1; Figs. 10 and 11 are perspective views of the holder-operating lever, and Fig. 12 is a face view of a blade.

Similar numerals of reference indicate corresponding parts in the several views.

The blade holder shown comprises two opposed jaws or members 1, 1^a placed side by side to receive between their separated edges a blade 2. The jaws 1, 1^a are shown connected at their inner or lower parts by the web 1^b, shown suitably folded to receive the blade-holder supporting-shaft 3, to which the blade holder may be secured in any well known manner.

The parts 1, 1^a, 1^b of the holder are preferably made of a single piece of suitable metal stamped and folded in the manner shown, whereby suitable resiliency of the jaws 1, 1^a is provided tending normally to cause said members to close to clamp the blade between them. Means are provided on the jaws of the holder to retain the blade firmly in position between the jaws, and to spread said jaws apart to release the blade and permit insertion of a blade between the jaws. To this end I have shown a lever 4 pivotally supported between jaws 1, 1^a and projecting beyond the corresponding ends thereof. The lever 4 has a portion 4^a adapted to lie between adjacent ends of jaws 1, 1^a, and adapted to enter the notch or recess 2^a, in the adjacent end of blade 2, to act as a stop or abutment to retain the blade in the holder. The outer portion 4^b of lever 4 serves as a finger piece or handle to permit rocking of said lever. The part 4^a of lever 4 is shown offset from the plane of the part 4^b of said lever, and the latter part is shown provided with an opening 4^c, adapted to receive the tongue or projection 1^c of holder jaw 1, which latter, adjacent to the end of member 1, is shown bent or recessed at 1^d to serve as a seat for the lever. The inner end of lever 4^a is adapted to bear against holder jaw 1^a, so that when said lever is swung from the position shown in Fig. 5, approximately to the position shown in Fig. 6, the jaws 1, 1^a will be spread apart. The jaw 1^a at its end is provided with a stop or inturned portion 1^e adapted to engage the inner end of lever 4 to limit the outward swing thereof. Said end portion of jaw 1^a is also shown bent outwardly or recessed at 1^f to accommodate the end of lever 4^a, thereby enabling the latter to be relatively long from its pivotal point, and yet not to unduly expand the holder jaws 1, 1^a. The upper marginal end portion 1^g of jaw 1^a is shown bent inwardly to overlie lever 4 to aid in retaining the same in position, and the lower bent portion 1^g of jaw 1^a may serve a similar purpose.

The device, as described, may be similar at opposite ends of the blade holder, and the blade be provided with notches or recesses 2^a at opposite ends to coact with the corresponding levers 4, whereby when the blade is between holder jaws 1, 1^a and the ends 4^a of said levers are turned so as to enter the notches in the ends of the blade, the inward spring tendency of jaws 1, 1^a of the holder will grip the blade, and will also grip lever ends 4^a, whereby the blade is retained in position in the holder. When it is desired to remove the blade, one or

both of the levers 4 are turned to substantially the position shown in Fig. 6, whereby one or both ends of jaws 1, 1^a will be separated or expanded to release the blade, the lever end or ends 4^a thereupon moving out of the recess or recesses 2^a at the end or ends of the blade, and the blade may be removed. In such positions of the parts the blade may be inserted between jaws 1, 1^a, and the levers turned to the positions shown in Figs. 1, 2, 3, 4 and 5, to cause gripping and retaining of the blade. The parts 4^a of the lever constitute stops upon the blade holder to prevent movement of the blade, and the gripping of the jaws 1, 1^a upon the blade retains the same firmly in position in the holder.

In addition to the notches 2^a in the ends of the blade I have shown the blade provided with an aperture 2^b disposed preferably midway between notches 2^a, 2^a, adapted to receive a projection *a* upon one of the holder jaws. For this purpose I have shown holder jaw 1^a depressed at *a* to pass into the aperture 2^b in the blade, and the jaw 1 depressed at *b* in register with the projection *a* to accommodate the latter, whereby the projection *a* when the blade is properly in position between the stops or levers 4^a, will enter the aperture 2^b. This arrangement not only aids in retaining the blade in position between the holder jaws 1, 1^a but overcomes danger that the blade will not be properly set in position in its holder, by reason of the fact that unless the projection *a* registers with the opening 2^b in the blade, the holder jaws 1, 1^a will not close properly upon the side faces of the blade, and the entering of projection *a* in aperture 2^b of the blade assures the proper location of the notches or recesses 2^a at the ends of the blade in position to receive the ends 4^a of levers 4.

The blade holder above described may be used in safety razors, and is particularly adapted for use in the "Auto Strop" safety razor invented by me.

As illustrative of the adaptability of my improved blade holder for safety razors, I have illustrated a frame having the base 6 and side uprights 6^a extending therefrom, upon which the shaft 3 is journaled, a handle 7 being secured to frame 6. The numeral 8 indicates the well known stop engaging roller having gear 9 meshing with gear 10 on shaft 3 for rocking the blade holder and blade for stropping the latter, rollers 11 being carried by the frame as usual for tensioning a strop.

While I have illustrated my improvements in connection with the "Auto Strop" safety razor, it will be understood that the same may be used whether the blade holder be adapted to rock or not.

Changes may be made in the details of construction and arrangements of parts shown and described, within the scope of the appended claims, without departing from the spirit of the invention.

Having now described my invention what I claim is:—

1. A blade holder having a pair of normally approaching jaws to receive a blade between them, and means movably mounted on one of the jaws coacting with the other jaw to spread said jaws apart to receive or release a blade, combined with a blade having a notch at one end adapted to receive said jaw operating means to aid in retaining the blade between said jaws.

2. A blade holder having a pair of jaws normally spring pressed together to receive a blade between them, and a member movably mounted upon one jaw to engage the other jaw to spread said jaws apart, combined with a blade having a recess to receive said member to aid in retaining the blade between said jaws.

3. A blade holder having a pair of jaws normally spring pressed together to receive a blade between them, and a lever pivoted on one jaw and movable between said jaws having a portion to coact with said jaws to spread them apart and a portion free from said jaws in position to be operated, the jaw opposing the lever having a stop to limit the swing of said lever for spreading the jaws apart.

4. A blade holder having a pair of jaws normally spring pressed together to receive a blade between them, and a lever pivoted on one of said jaws and movable between said jaws having a portion free from said jaws in position to be operated, combined with a blade having a notch to receive a portion of the lever between said jaws.

5. A blade holder provided with a pair of jaws normally spring pressed together adapted to clamp a blade between them, a lever, and means for pivotally supporting said lever to rock between said jaws to spread them apart, one of said jaws having a stop to limit the movement of said lever, said lever extending beyond the edges of the jaws.

6. A blade holder provided with a pair of jaws normally spring pressed together adapted to clamp a blade between them, and a lever pivotally carried by one jaw and having a portion between said jaws to spread them apart, one of said jaws having a recess to pivotally receive said lever and having a stop beyond said recess to engage the lever when it spreads the jaws apart.

7. A blade holder provided with a pair of jaws normally spring pressed together adapted to receive a blade between them, and a lever between said jaws to spread them apart, one of said jaws having a recess to pivotally receive said lever, the other jaw

having a stop to limit outward swing of said lever.

8. A blade holder comprising a pair of jaws normally spring pressed together to receive a blade between them, and a lever pivotally supported upon one of said jaws and having a portion adapted to lie therebetween, said lever having an opening, and one of said jaws having a projection adapted to enter said opening.

9. A blade holder comprising a pair of jaws normally spring pressed together to receive a blade between them, and a lever pivotally supported upon one of said jaws and having a portion adapted to lie therebetween, said lever having an opening, and one of said jaws having a projection adapted to enter said opening, the other jaw having a stop to limit outward swing of the lever.

10. A blade holder comprising a pair of jaws normally spring pressed together to receive a blade between them, and a lever pivotally supported upon one of said jaws and having a portion adapted to lie therebetween, said lever having an opening, and one of said jaws having a projection adapted to enter said opening, combined with a blade having a recess in one end to receive the portion of said lever between the jaws.

11. A blade holder provided with a pair of jaws normally spring pressed together adapted to receive a blade between them, a stop for a blade at one end of said jaws, and means movably supported by said holder at the opposite end of said jaws adapted to swing crosswise of said jaws to spread said jaws apart, combined with a blade having recesses in opposite ends to engage said stop and said jaw spreading means.

12. A blade holder provided with a pair of jaws normally spring pressed together adapted to receive a blade between them, a stop at one end of said jaws, a lever having a portion located between said jaws adapted to spread said jaws apart, and a blade having notches in opposite ends adapted to engage said stop and the portion of the lever between said jaws.

Signed at New York city, in the county of New York and State of New York this 26th day of April, A. D. 1912.

HENRY J. GAISMAN.

Witnesses:

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