May 11, 1926. 1,583,967

R. E. EPPS, JR

KNIFE

Filed August 5, 1925

Fig. 1.

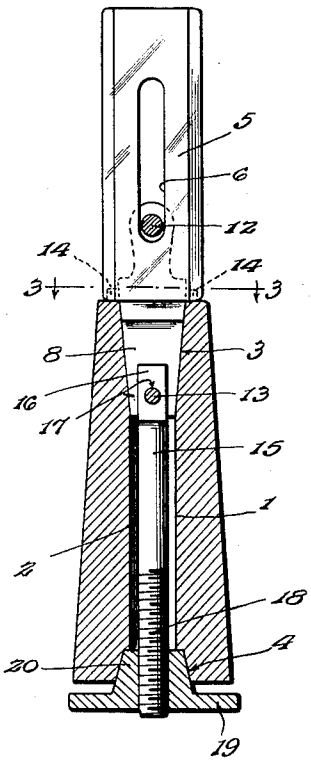


Fig. 2.

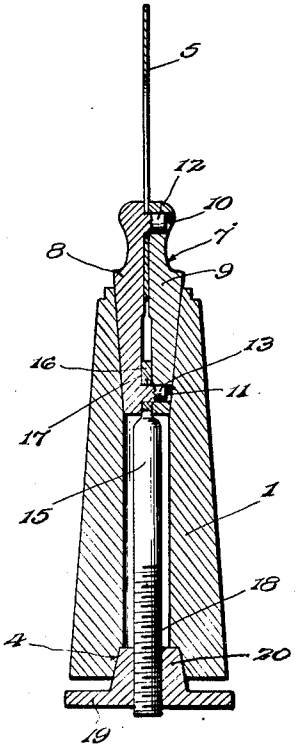
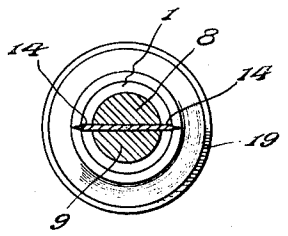


Fig. 3.



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UNITED STATES PATENT OFFICE.

ROBERT EDWARD EPPS, JR., OF BELLBUCKLE, TENNESSEE.

KNIFE.

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This invention relates to a knife and one object of the invention is to provide a knife in which the blade may consist of a safety razor blade which is no longer sharp enough for shaving, thereby providing a use for razor blades which have become dull.

Another object of the invention is to provide a knife including a handle having jaws carried thereby and so constructed and mounted that the razor blade may be firmly gripped between the jaws and prevented from moving out of a position longitudinally of the handle when in use.

Another object of the invention is to provide improved means for drawing the jaws rearwardly through the body of the knife handle to a clamping position and securely holding them in the retracted position.

This invention is illustrated in the accompanying drawing, wherein

Figure 1 is a view showing the handle of the knife in longitudinal section;

Fig. 2 is a longitudinal sectional view taken at right angles to the view shown in Fig. 1, and

Fig. 3 is a transverse sectional view taken on the line 3—3 of Fig. 1.

The handle of the knife which forms the subject-matter of this invention includes an elongated body portion 1 having an axially disposed bore 2 formed therein, the forward end portion of the bore being flared outwardly, as shown at 3, and the rear end portion being enlarged to form a socket 4 which increases in diameter toward its outer end. This handle may be formed of any material desired but will preferably be formed of metal, such as aluminum, which is strong but at the same time light in weight. It should also be noted that if desired the body may be formed as a tubular casting and carry a hand grip formed of wood. When such a construction is made use of, the socket 4 will be formed in the rear end portion of the hand grip and the rear end of the body will, of course, terminate at the bottom of the socket.

The blade 5 which has been shown connected with the handle is a safety razor blade of a well-known type which is sharpened along both of its longitudinal edges and is formed intermediate its width with a longitudinally extending slot 6. It will, of course, be understood that other razor blades may be made use of, it being essential, however, that the blade used be provided with an opening intermediate its width and adjacent one end. The head 7 which carries the blade is formed of jaw sections 8 and 9 which, when placed together, form a head circular in cross section and tapered towards its rear end so that the rear end portion of the head will fit snugly in the flared forward end portion 3 of the bore 2 and be firmly held in gripping engagement with a blade disposed between the forward end portions of the jaws. It should be noted that the forward end portions of the jaws have their inner faces adapted to contact with each other when the blade is not in place and that the rear end portions of the jaws have their inner faces disposed in offset relation to the inner faces of the forward end portions so that the rear end portions of the jaws are disposed in spaced relation to each other, as shown in Fig. 2. Openings 10 and 11 are formed in the forward and rear end portions of the jaw 9 to receive pins 12 and 13 which extend from the inner face of the jaw 8. The two jaws will, therefore, be held in operative relation to each other and may have movement towards and away from each other except when the head is firmly wedged in the flared forward end portion of the bore. The pin 12 is further adapted to pass through the opening or slot 6 in the blade 5, as shown in Fig. 1, so that the blade will be securely held between the jaws. It should also be noted that the body 1 is provided with notches 14 at opposite sides of the flared forward end portion of the bore into which the rear end of the blade fits, as shown in Figs. 1 and 3. The blade is, therefore, prevented from having tilting movement and in addition the blade by being seated in the notches will serve to prevent the head 7 from turning in the bore of the body while the head is being drawn into the forward end portion of the bore and tightly wedged therein.

The means employed for drawing the head into the bore of the body consists of a rod 15 which is of a diameter to fit loosely in the bore of the body and has its forward end portion flattened to form an ear 16. The ear 16 fits between the spaced rear end portions of the jaws and is formed with an opening 17 to receive the pin 13. It will, therefore, be seen that, when the rod is drawn rearwardly through the bore, a pulling action will be exerted which will draw the head inwardly and cause it to be tightly

wedged in the flared forward end portion of the bore. The rod is of such length that it extends beyond the rear end of the handle and has its rear end portion threaded, as shown at 18, so that the adjusting and securing nut 19 may be screwed upon the stem with its forwardly extending frusto-conical hub portion 20 fitting into the socket 4. From an inspection of Figs. 1 and 2, it will be seen that the body of the nut is disposed in spaced relation to the rear end of the body of the handle and, therefore, the nut can be easily turned in order to impart longitudinal movement to the rod or stem 15.

When the knife is in use and it is desired to insert a blade, the nut 19 is rotated so that the rod 15 is moved forwardly and causes the blade-gripping head to move out of the handle a sufficient distance to permit the jaw sections of the head to be spread apart and the blade inserted between the jaws. The jaws are then moved towards each other so that the pin 12 passes through the slot 6 of the blade and into the opening 10 in the forward end portion of the jaw 9. The outer end portions of the jaws are then held in close contact with the blade and the head moved inwardly, care being taken to have the head so positioned that the rear end of the blade fits into the notches 14 at the forward end of the handle. The securing nut 19 is then tightened and draws the stem or rod 15 rearwardly so that the head is tightly wedged in the flared forward portion of the bore 2 and securely holds the blade in place. The blade can be used until dulled or broken and a new blade then easily and quickly put in place.

Having thus described the invention, I claim:

1. In a blade holder, a handle including a body formed with a longitudinally extending bore, a blade holding head having a tapered portion adapted to extend into the forward end portion of the bore of said body for wedging engagement with the walls thereof, said head being formed of longitudinally extending jaw members movable towards and away from each other for gripping engagement with a blade disposed between their forward end portions when wedged into the bore of said body, said jaws having the forward end portions of their inner faces contacting and their rear end portions spaced from each other, pins extending from the end portions of the inner face of one jaw for fitting into openings in end portions of the other jaw, the forward pin being adapted to pass through an opening in a blade gripped between the jaws, a stem mounted upon the pin between the spaced rear end portions of said head and extending through the bore of said handle and having a threaded outer end portion, and a nut screwed upon the threaded end of said stem for drawing the stem and head rearwardly of the handle to effect tight wedging of the head in the handle.

2. In a blade holder, a handle including a body formed with a longitudinally extending bore, a blade holding head having a tapered portion adapted to extend into the forward end portion of the bore of said body for wedging engagement with the walls thereof, said head being formed of longitudinally extending jaw members movable towards and away from each other for gripping engagement with a blade disposed between their forward end portions when wedged into the bore of said body, said jaws having the forward end portions of their inner faces contacting and their rear end portions spaced from each other, pins extending from the end portions of the inner face of one jaw for fitting into openings in end portions of the other jaw, the forward pin being adapted to pass through an opening in a blade gripped between the jaws, a rod having its forward end extending between the spaced rear end portions of said jaws and formed with an opening to receive the rear pin and connect the rod with said head, and means for drawing said rod rearwardly through the bore of said body to effect wedging of the head in the forward end portions of the bore.

3. In a blade holder, a handle including a body formed with a longitudinally extending bore, a blade holding head having a tapered portion adapted to extend into the forward end portion of the bore of said body for wedging engagement with the walls thereof, said head being formed of longitudinally extending jaw members movable towards and away from each other for gripping engagement with a blade disposed between their forward end portions when wedged into the bore of said body, said jaws having the forward end portions of their inner faces contacting and their rear end portions spaced from each other, pins extending from the end portions of the inner face of one jaw for fitting into openings in end portions of the other jaw, the forward pin being adapted to pass through an opening in a blade gripped between the jaws, a rod having its forward end extending between the spaced rear end portions of said jaws and formed with an opening to receive the rear pin and connect the rod with said head, said rod having a threaded rear end portion and being of a diameter to fit loosely within the bore of the body, and a nut adapted to be screwed upon the threaded rear end portion of said rod and having a forwardly extending hub portion for abutting engagement with said body to dispose the body of the nut in spaced relation to the rear end of said body and permit easy rotation of the nut to draw the rod rearwardly and wedge

the head in the forward end portion of the body.

4. In a blade holder, a handle including a body formed with a longitudinally extending bore having a flared forward end portion, a blade holding head formed of longitudinal jaw sections movable towards and away from each other, one jaw having openings in its forward and rear end portions and the other jaw having pins extending from its inner face for fitting into the openings of the first jaw, the forward pin being adapted to pass through an opening in a blade disposed between the jaws and said body being provided with opposed notches at its forward end to receive the rear end of the blade, a rod having its forward end flattened and disposed between the rear ends of said jaws upon the rear pin, said rod extending through the bore of said body and having a threaded rear end portion, and a securing nut screwed upon the threaded rear end portion of said rod and engaging the rear end of said body and when tightened adapted to draw the rod and head rearwardly and retain the jaws in a blade gripping position.

In testimony whereof I affix my signature.

ROBERT EDWARD EPPS, JR. [L. S.]