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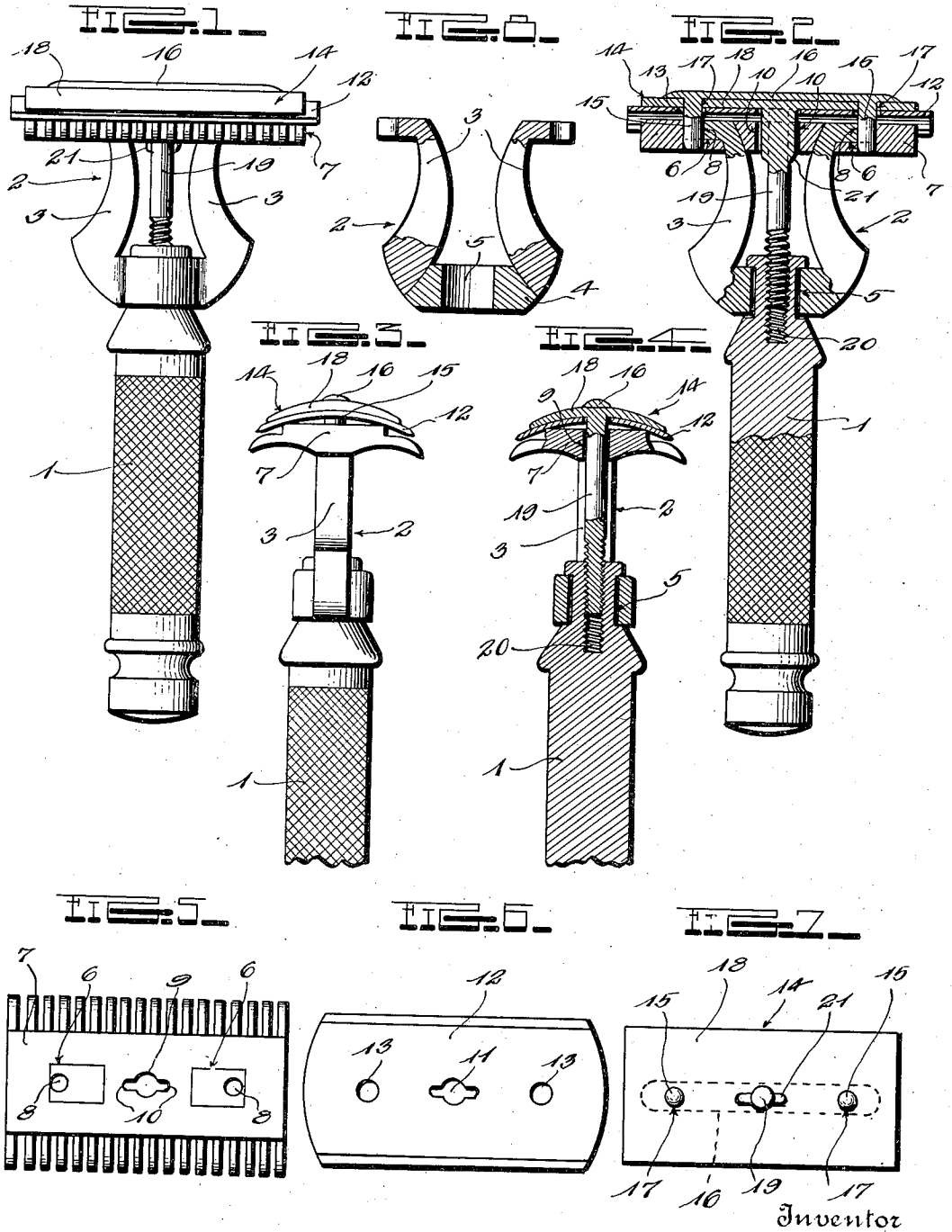
G. D. MOULTON

SAFETY RAZOR

Filed March 22, 1923



Witness

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UNITED STATES PATENT OFFICE.

GEORGE D. MOULTON, OF DENISON, TEXAS.

SAFETY RAZOR.

Application filed March 22, 1923. Serial No. 626,879.

To all whom it may concern:

Be it known that I, GEORGE D. MOULTON, a citizen of the United States, residing at Denison, in the county of Grayson and State of Texas, have invented certain new and useful Improvements in Safety Razors; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has for its object to improve upon the subject matter shown by my pending U. S. application, Serial No. 614,880, filed January 25, 1923. In the pending application, a horseshoe magnet is associated with a safety razor in such a manner as to be effective for picking up the blade whenever desired, but it is the intent of the present invention to improve upon that construction by making novel provision for connecting the ends of the pole pieces of the magnet, whether the blade is in or out of the holder, thereby preventing the magnet from losing its strength.

Another object is to provide novel means whereby the movable and stationary blade clamping plates and the blade may be easily brought into proper relation with each other prior to clamping said blade in place.

With the foregoing in view, the invention resides in the novel subject matter hereinafter described and claimed, the description being supplemented by the accompanying drawings.

Figure 1 is a side elevation of a safety razor constructed in accordance with my invention.

Figure 2 is a vertical longitudinal sectional view, partly in elevation.

Figure 3 is an edge view.

Figure 4 is a vertical transverse sectional view, partly in elevation.

Figure 5 is an outer side elevation of the stationary blade clamping plate.

Figure 6 is a plan view of the blade.

Figure 7 is an inner side elevation of the removable blade holding cap.

Figure 8 is a detail sectional view showing a different form of magnet which may be used if desired.

In the drawings above briefly described, the numeral 1 designates a suitable handle whose front end carries a horseshoe magnet 2 whose pole pieces 3 may either be integrally joined at their inner ends as shown for instance in Fig. 2, or may be suitably secured to a connecting portion 4 of brass or other non-magnetic metal. In either instance, the connecting body of metal between the pole pieces 3 is preferably formed with an opening 5 in which the reduced front end of the handle 1 is swiveled, for a purpose to appear.

The front extremities of the pole pieces 3 are received in recesses 6 in a rear stationary blade-clamping plate 7, said extremities preferably extending laterally outward as shown and being formed with axially parallel openings 8 which are accessible at the outer or front side of the plate 7, said plate being preferably drilled, so that in effect the openings 8 extend entirely through this plate as shown.

Between the openings 8, the plate 7 is formed with a non-circular opening which preferably includes a substantially circular portion 9 with offsets 10 at diametrically opposite points, formed by grooves. The opening 9—10 is designed for registration in a similarly shaped opening 11 in an appropriate blade 12 and this blade is also formed with other openings 13 to aline with the openings 8.

The inner or stationary blade-clamping plate 7 is formed of non-magnetic metal such as brass and an outer removable blade-clamping cap 14 is also formed, for the most part, of similar metal. This cap 14 however is provided with a pair of inwardly extending studs 15 of magnetic metal for passage through the openings 13 and snug reception in the openings 8, said cap 14 being formed with a magnetic portion 16 which connects the studs 15. The portion 16 is preferably formed of a strip of suitable metal carrying the studs 15 on its ends, which studs pass through openings 17 in the plate or body portion 18 of the cap, the strip 16 and plate 18 being suitably secured together to form a single unit. In practice, these parts, like all other parts of the razor are suitably plated and when this is done, it appears that the strip 16 is formed as an integral part of the plate 18.

By providing the studs 15, the blade 12 and the parts 7 and 14, are held in proper relation and by forming these studs of magnetic metal and connecting them by a length of magnetic metal 16, the pole pieces 3 of the magnet 2 are connected at all times, whether the blade 12 is in the holder or de-

tached therefrom, and thus it will be seen that the magnet will not lose its strength, whereas it will gradually weaken if these pole pieces are not properly connected.

The inner side of the cap 14 is provided with a stem 19 insertible through the openings 11 and 9—10, said stem being threaded on its rear or inner end, in the present disclosure, for reception in the threaded socket 20 at the front end of the handle 1. The portion of the stem 19 adjacent the cap 14 is shaped similarly to the openings 9—10 and 11 as indicated at 21 and this portion 21 is slightly greater in length than the studs 15. This formation assists materially in properly alining the parts 7, 12 and 14 so that the studs 15 will be properly received in the openings 13 and 8.

The details herein disclosed are preferably followed, but it is to be understood that the present application is not restricted to any particular means for drawing the cap 14 toward the stationary clamping plate 7, the swiveled handle 1 and its threaded connection with the stem 19, being merely typical of the many ways in which the desired result can be accomplished.

I claim:

1. A safety razor comprising a handle, a horseshoe magnet swivelled on the front end of said handle, a stationary non-magnetic blade clamping plate carried by the pole pieces of said magnet, said pole pieces having openings accessible at the blade engaging side of said stationary plate, a removable blade clamping cap formed of non-magnetic metal, and having magnetic metal studs receivable in the openings of said pole pieces, said cap having a united part thereof formed of magnetic metal said magnetic part connecting said studs.

2. A safety razor comprising a handle, a horseshoe magnet carried by the front end thereof, a stationary non-magnetic blade clamping plate carried by the pole pieces of said magnet, said pole pieces having openings accessible at the blade engaging side of said stationary plate, a removable blade clamping cap of non-magnetic metal having openings alined with those aforesaid, and a strip of magnetic metal at the outer side of and secured to said removable clamping cap, said strip having studs of magnetic metal passing through the openings of said removable plate and receivable in the openings of said pole pieces.

3. A structure as specified in claim 1; together with means for drawing said cap toward said stationary clamping plate and holding the same.

4. A safety razor comprising a stationary blade clamping plate having a non-circular central opening and other openings between said central opening and the ends of the plate, a removable blade clamping cap formed of a non-magnetic inner section having a central rearwardly extending stem, said stem having a portion of its length shaped for reception in said non-circular opening and a simularly shaped opening in a blade, a magnetic section united with the outer side of the non-magnetic section of said cap, magnetic metal studs formed on the ends of said magnetic section of the cap and extending inwardly through the non-magnetic section of the cap and engaged with said other openings, in said stationary clamping plate and means associated with said stem for drawing said cap toward said stationary plate.

5. A safety razor comprising a horse shoe magnet having in its inner or pole connecting portion a circular opening the outer ends of the pole pieces also having openings a handle having a reduced front end swiveled in said circular opening, and having in said end a threaded socket, a stationary blade clamping plate having a central passage and longitudinally aligned openings between said central passage and the ends of the plate to receive the ends of the pole pieces, a blade clamping cap having an inwardly extending stem receivable in the central passage of the plate and having a threaded inner end onto which the outer end of the handle is screwed to draw the cap toward the clamping plate, and studs projecting from the inner side of the cap and engaged with the openings in the outer ends of the pole pieces of the magnet.

In testimony whereof I have hereunto affixed my signature.

GEORGE D. MOULTON.