W. A. BARRY.

SAFETY RAZOR.

APPLICATION FILED MAY 19, 1920.

1,351,712.

Patented Aug. 31, 1920.

3 SHEETS—SHEET 1.

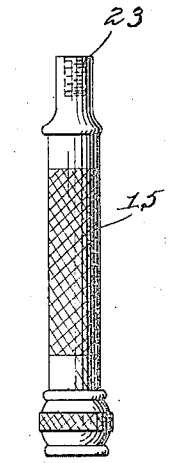


Fig. 1.

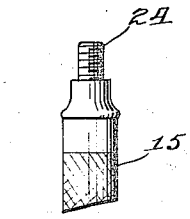


Fig. 2.

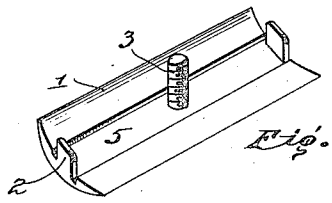


Fig. 3.

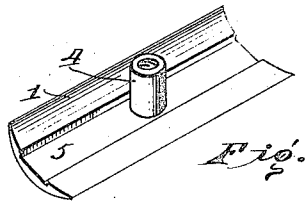


Fig. 4.

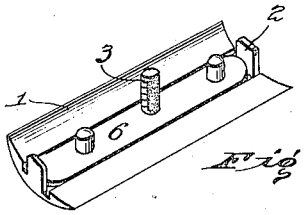
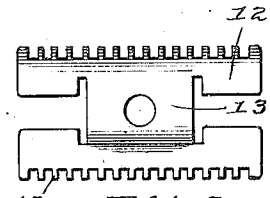


Fig. 5.



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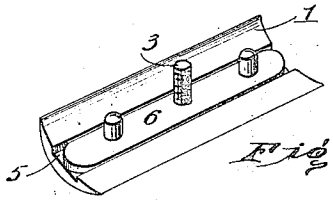
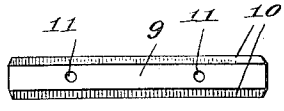


Fig. 6.

Fig. 8.



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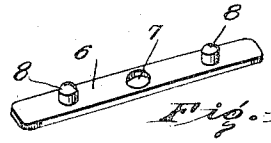

Fig. 10.

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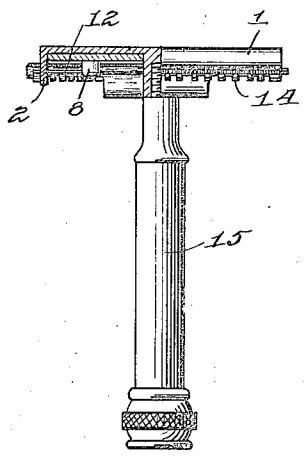

Fig. 12.

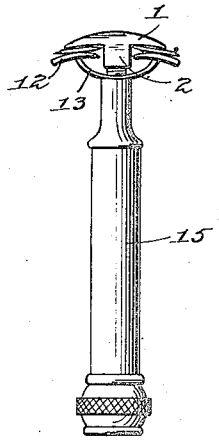

Fig. 11.

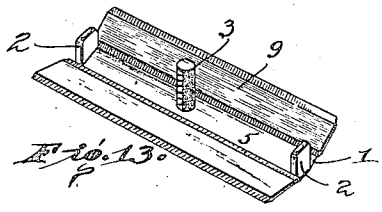

Fig. 13.

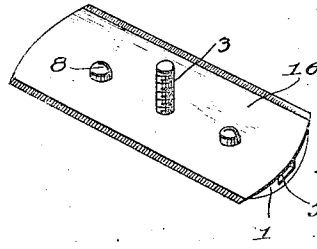

Fig. 14.

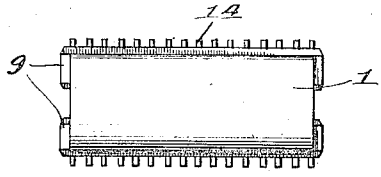

Fig. 15.

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3 SHEETS—SHEET 3.

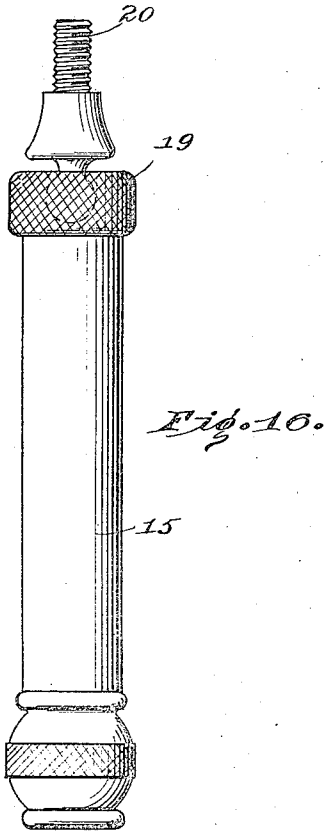

Fig. 16.

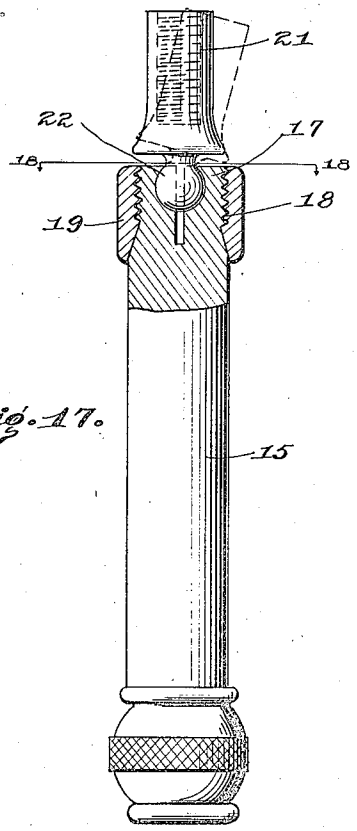

Fig. 17.

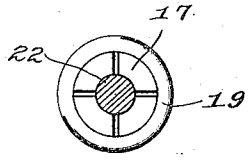

Fig. 18.

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UNITED STATES PATENT OFFICE.

WILLIAM A. BARRY, OF LITTLE ROCK, ARKANSAS.

SAFETY-RAZOR.

1,351,712. Specification of Letters Patent. Patented Aug. 31, 1920.

Application filed May 19, 1920. Serial No. 382,671.

To all whom it may concern:

Be it known that I, WILLIAM A. BARRY, a citizen of the United States, residing at Little Rock, in the county of Pulaski and State of Arkansas, have invented certain new and useful Improvements in Safety-Razors, of which the following is a specification.

This invention relates to razors and more particularly to that type commonly known as safety razors.

An object of the invention is to provide a suitable safety razor, which may readily be adapted to receive several different types of blades.

A further object is to provide a safety razor, which adjusts the cutting surface of the cutting blade or blades by bending or contracting and expanding the guard or back plate.

Another object of the invention is to provide a safety razor which is adapted to receive one or a plurality of cutting blades, and which may be readily knocked down for cleaning or packing.

A still further object is to provide a safety razor which may be disconnected from the handle, but at the same time will hold the blade or blades in their places within the razor, thereby doing away with the necessity of assembling the different parts together when it is desired to use the razor the next time.

Other objects will appear as the description proceeds.

In the accompanying drawings which form a part of my specification,

Figure 1 is an elevation of the handle of said razor, having its end provided with an internally screw-threaded socket;

Fig. 2 is an elevation, partly cut away, showing the end of the handle provided with a screw-threaded stud;

Fig. 3 is a perspective view of the front plate of my razor, showing the ears formed at its ends, and slot longitudinally thereof, to receive my improved adapter;

Fig. 4 is a perspective view of the front plate, showing the plate without end ears, and provided with the slot for the reception of the adapter, and an internally screw-threaded socket instead of the screw-threaded stud or pin shown in Fig. 1;

Fig. 5 is a perspective view of the front plate, with end ears and screw-threaded stud, with the adapter in position;

Fig. 6 is a perspective view of the front plate, without the end ears, but with the adapter in position;

Fig. 7 is a plan view of the guard or back plate;

Fig. 8 is an end view of the guard or back plate, with the blades in position thereon;

Fig. 9 is a plan view of one of my improved blades;

Fig. 10 is a perspective view of my adapter;

Fig. 11 is an end elevation of the complete razor, with blades in position for shaving;

Fig. 12 is a side elevation, partly in section, showing the relative positioning of the different parts;

Fig. 13 is a perspective view of the front plate with end ears, and with the blades in position, but without the adapter;

Fig. 14 is a perspective view of the front plate without the end ears, but with the adapter in position and a single blade thereon;

Fig. 15 is a plan view of the complete razor assembled, showing the positioning of the blades;

Fig. 16 is an elevation of my improved handle, with a screw-threaded stud or end member;

Fig. 17 is an elevation, partly in section of my improved handle, showing an internally screw-threaded socket on the end thereof, and

Fig. 18 is a sectional view taken on the plane of line 18—18 of Fig. 17.

My improved razor consists of a rigid front plate 1, and may be provided with the integrally formed end ears 2, and an integrally formed threaded stud 3 or socket 4. On the inner face of the front plate 1, and longitudinally thereof, is formed a slot 5, for the reception of an adapter 6. This adapter 6 is provided with a central opening 7, and a pair of studs 8 midway of the ends or approximately so.

The blade or blades 9 are slightly longer than the front plate 1, and are provided with oppositely disposed cutting edges 10. The openings 11 in said blades, are provided for packing purposes.

The guard or back plate 12 is formed of resilient or springy metal, and is made more thin at the inner portion 13, and bowed to effectively cause the serrated side members 14 to advance or retract as the handle 15 is tightened or loosened, thereby permitting a number of adjustments for shaving.

It will be seen that the blades 9, engage the ears 2, but are separated from the stud 3 or socket 4 by a very small margin or distance. Thus the ears form the stopping or limiting means for the blades.

It will also be seen that when the adapter 6 is in position within the slot 5 in the front plate 1, the single blade 16 may be used, being held in place by means of the studs 3 and 8.

The handle member 15 is provided with a split socket 17, the outer end of which is threaded as at 18 to receive the nut 19, for adjustment. A threaded stud 20 or socket 21, as the case may be, is provided with an integral head or journal member 22, which is adapted to seat in and coöperate with the split socket 17. The threaded stud 20 or socket 21 engage the guard plate 12 and front plate 1, and hold them in position for instant use, so that when it is desired to pack the razor, it is not necessary to take the plates apart and the blades out, etc., but merely unloosen the nut 19 and withdraw the head or journal member 22 from the socket 17. In this manner, it will be seen that the razor may be quickly knocked down, and absolutely and entirely does away with the extra work of assembling the various parts prior to the taking of each shave. If a rigid handle is used, the socket 23 or stud 24 is employed.

It will be seen that when the adapter 6 is in position within the slot 5 of the front member 1, and a single blade 16 superimposed thereupon, the ears 2 may be entirely dispensed with. Also the razor may be used without the adapter, when the two blades 9 are in use.

The operation of my improved razor when the two blades are to be used, is as follows: The blades are placed on the front plate, in engagement with the ears 2, and the guard is superimposed thereon. The handle is then tightened down, until the guard member is somewhat advanced to permit the proper amount of blade surface for the shave. When the blades are seated on the guard member, and the front plate in position, it will be seen that the edges of the front plate are outward and beyond the line of center of the blades, thereby holding them from movement. However, when the handle is tightened, the guard advances, due to the resiliency of the portion 13, and retracts when the handle is loosened. Thus there may be a multiplicity of adjustments, to suit any growth of beard, and to permit of any closeness of shaving.

The operation of my improved safety razor, with the adapter and single blade is as follows: The front plate is placed in such a position that the adapter may be placed in the slot, and the single blade superimposed thereon. The guard or back member is then placed on top of the blade, and the handle tightened down. As before described the tightening or loosening of the handle will advance or retract the guard member, thereby permitting of the plurality of adjustments.

It will be understood from the foregoing that the handle may be bent in any direction or at any angle, due to the flexible connection, also that the handle may be detached without disassembling the various parts.

An advantage of the adapter is that the razor may be readily cleaned and dried around the stud or socket on the front plate, which is very difficult and unsuccessfully done in other types of razors.

It is known that the idea of having two blades is old in the art, also that there are some patents on different types of adapters, but the hereinbefore described adapter and operating parts of the razor are new.

It will be understood that either type of handle may be just as successfully used, and that either type of front plate may be substituted one for the other.

I do not limit myself to the specific arrangement and construction of parts, as it is known that many minor changes in detail of construction may be resorted to without departure from the spirit of the invention.

Having thus described my invention what I claim as new and desire to secure by Letters Patent of the United States is:—

1. An adapter for a safety razor comprising a bar or plate, said bar having means at its central portion to prevent longitudinal displacement, and a plurality of studs formed integrally therewith, positioned between the center and the opposite ends for engaging a different variety of blades.

2. A safety razor comprising a front plate, a resilient or flexible guard plate, a plurality of blades, and means connecting said front plate and said guard plate, whereby said guard plate may be contracted or expanded to slide the guard relative to the cutting edges of said blades.

3. A safety razor comprising a front plate, a longitudinally extending channel or slot therein, an adapter in said slot, a cutting blade engaging said adapter, and means comprising a handle connecting said front plate and guard plate, whereby said guard plate may be contracted or expanded to vary the position of the cutting edge of said blade.

4. A safety razor comprising a front plate, a threaded stud integral with said plate, a longitudinally extending slot in said plate, an adapter seated in said slot, said adapter having a plurality of outwardly extending studs and means engaging the stud on said front plate, a blade engaging said adapter and seated on said front plate, a resilient guard plate, and means for contracting

and expanding said guard plate to vary the position of the cutting edge of said blade.

5. A safety razor comprising a front plate, ears formed at the opposite ends of said front plate, a resilient guard plate, and blades interposed between said front and guard plates and in contact with said ears, and means for sliding the guard relative to the cutting edges of said blades.

6. A safety razor comprising a front plate, ears formed at the opposite ends of said plate, a resilient guard plate, blades interposed between said front and guard plates, and in contact with said ears, and means connecting said plates, whereby said resilient guard plate may be contracted and expanded to slide the guard relative to the cutting edges of said blades.

7. In a safety razor, a front plate, an adapter having means to engage a razor blade, and means on said front plate to prevent longitudinal and angular displacement of said adapter.

8. In a safety razor, a front plate, an adapter having means to engage a razor blade, and means extending through said adapter to prevent longitudinal movement of said adapter.

9. In a safety razor, a front plate, an adapter having means to engage a razor blade, means extending through said adapter to prevent longitudinal movement of said adapter, and means on said front plate to prevent angular displacement of said adapter.

10. In a safety razor, a front plate, a back or guard plate, blades between said plates, means to adjust the guard slidably along said blades, and means to prevent the blades from sliding with the guard.

In testimony whereof I affix my signature.

WILLIAM A. BARRY.