Dec. 8, 1925. 1,564,959

J. HOLTZMAN

CONTAINER FOR DOUBLE EDGED SAFETY RAZORS

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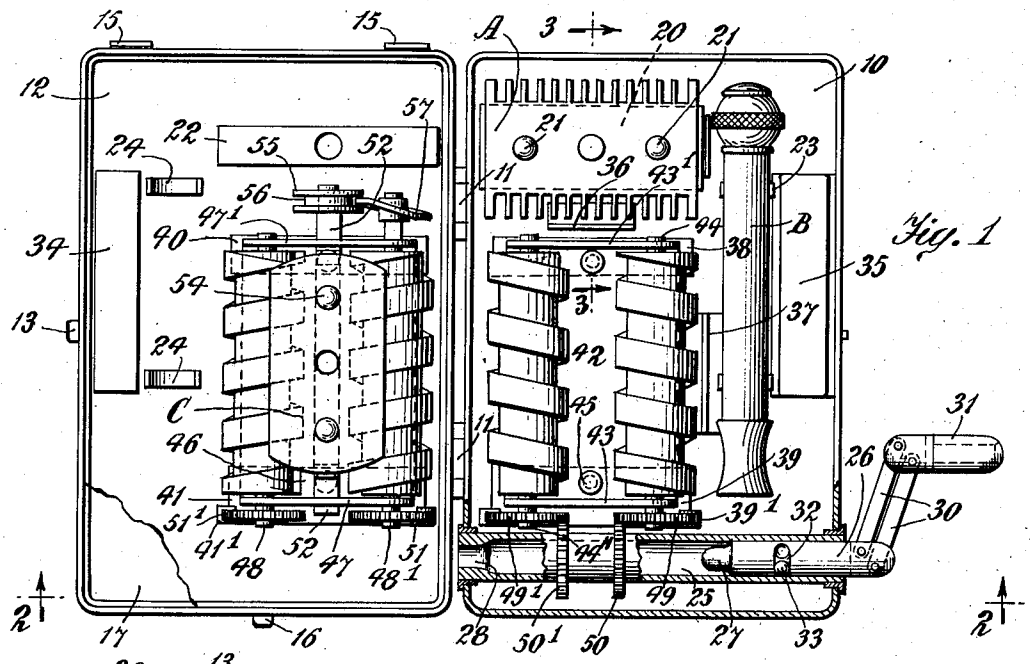


Fig. 1

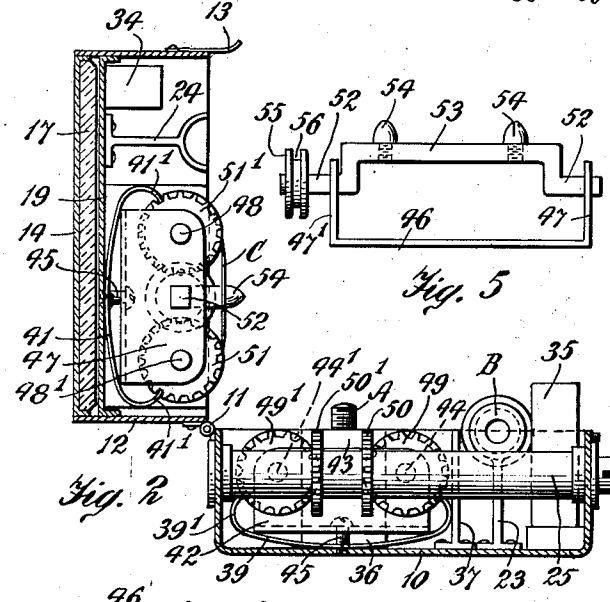


Fig. 2

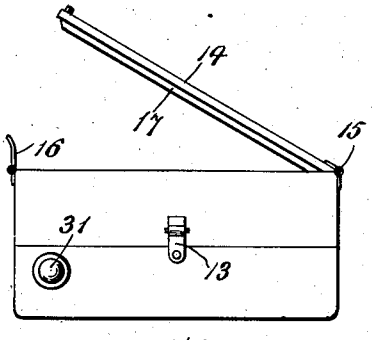


Fig. 6

Fig. 5

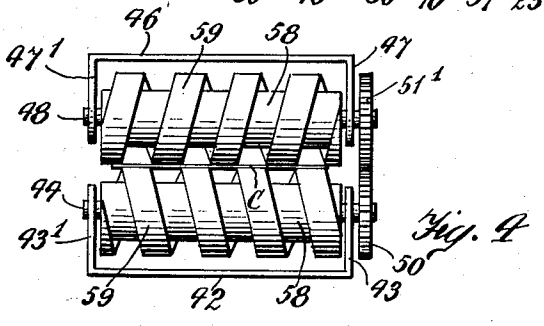


Fig. 4

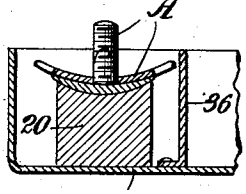


Fig. 3

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UNITED STATES PATENT OFFICE.

JOHN HOLTZMAN, OF NEW YORK, N. Y.

CONTAINER FOR DOUBLE-EDGED SAFETY RAZORS.

Application filed December 2, 1921. Serial No. 519,338.

To all whom it may concern:

Be it known that I, JOHN HOLTZMAN, a citizen of the United States, and a resident of New York, in the county and State of New York, have invented certain new and useful Improvements in Containers for Double-Edged Safety Razors, of which the following is a specification.

The principal purpose of this invention is to provide a case adapted to contain the parts of a safety razor when separated each part being readily accessible for assembling and all neatly arranged in a compact package.

A further object is to furnish means within the casing whereby the razor blade is held in connection with stropping devices which may be actuated at any time when the casing is closed, thus affording keen cutting edges without recourse to extraneous apparatus.

Another object is the provision of means which automatically prevent the rotation of the stropping rollers when the case is opened.

Other objects are to provide a mirror combined with the case, and in general to furnish a toilet adjunct of practical utility for the convenience of those who shave.

These and other like objects are attained by the novel construction, combination and arrangement of parts hereinafter described and shown in the accompanying drawing, forming a material part of this disclosure, and in which:—

Figure 1 is a plan view showing the interior of the razor case when in open position, parts being broken away to disclose structural features.

Figure 2 is a transverse sectional view of the same when the elements are at right angles, the section being taken substantially on line 2—2 of Figure 1.

Figure 3 is a fragmentary sectional view taken on line 3—3 of Figure 1.

Figure 4 is a side elevational view showing the relation of the upper and lower roller supports when the case is closed.

Figure 5 is a side view of the blade carrier in detail.

Figure 6 is a view of the casing as closed, looking from the front, the mirror being partially raised.

In the drawing, the numeral 10 designates one of the casing members and 12 the other, these members being joined along one of their longer edges by hinges 11 and held, when in closed position, by a spring catch 13.

The case, as shown, is an elongated rectangle in shape and may be said to resemble a box comprised of the hollow body member 10 and hollow cover 12, the latter having its outer wall 14 arranged in the manner of a thin lid, held by hinges 15 at one end and a spring catch 16 at the other, the inner surface of the lid carrying a mirror 17, that can be adjusted at an angle, as shown in Figure 6 for use as may be required.

Adjacent the surface of the mirror, when the same is folded inward, is a fixed wall or partition 19 constituting the real cover plate of the box.

Near one end of the body portion 10 of the case is a raised, inwardly extending block 20 carrying conically pointed pins 21 adapted to enter openings in the razor clamp head A, held by a similar block 22 carried by the cover 12, these blocks co-operating to clamp the head when the case is closed.

A pair of forked supports 23 extend upward from the bottom 10, parallel to the front wall of the box, adapted to receive the razor handle B, and a similar but a reversed pair of forks 24 extend from the cover plate 19 whereby the handle is held clamped when the case is closed.

A sleeve 25 is revolvably mounted transversely of the case in the body portion 10, between its front and rear walls, and slidable in the sleeve is a spindle 26, its inner reduced end 27 being engageable in an opening 28 in the rear wall when the spindle is pushed in to its limit.

The outer end of the spindle is bifurcated and between the forks are independently pivoted a pair of links 30, their outer ends being similarly engaged in a handle 31 which may be positioned to act as a crank for manually rotating the spindle or extended in alinement with the spindle so as to be telescopically received within the sleeve 25.

Formed in the spindle 26 is a transverse groove 32 adapted to contain a ball or sphere 33, within the sleeve and in such manner as to act as a friction clutch, engaging the in-

terior of the sleeve and causing it to rotate with the spindle when turned in one direction, but instantly disengaging the sleeve when the spindle is rotated in a reverse direction.

Carried by the cover 12 is a block 34, the same engaging a container 35 fixed in the base 10 and adapted to hold a number of razor blades when not otherwise in use.

A short transverse partition plate 36 stands up from the base 10 adjacent the teeth of the razor guard clamp A, and a similar longitudinal partition 37 is arranged adjacent the handle B.

Resting on the inner surface of the base 10 are arcuately bowed flat springs 38 and 39 and similar semi-elliptic springs 40 and 41 are positioned on the cover plate element 19.

Contacting with the convexly curved surface of the springs 38 and 39 is a bracket composed of a flat plate 42 having raised right angular ends 43 and 43′ drilled to receive a pair of parallel spaced spindles 44 and 44′.

The brackets are held on the springs by screws 45 in such manner as to permit them to be pressed toward the base 10 for a purpose further on apparent. In like manner similar screws 45 hold another bracket comprised of a plate element 46 and angular ends 47 and 47′ to the partition plate or wall 19 of the cover and mounted in the end elements are spindles 48 and 48′.

Fixed on the ends of each of the spindles 44 and 44′, adjacent the end of the case containing the handle, are gears 49 and 49′ respectively and meshing with their teeth are the teeth of gears 50 and 50′ fixed on the sleeve 25, these gears, although at right angles, being so shaped as to perform the function of miter gears, and obviously rotating the spindles in opposite directions.

Similar gears 51 and 51′ are fixed on the spindles 48 and 48′ which, when the case is closed, mesh with the gears 49 and 49′ so as to be driven by them but when the case is open, even partially, the gears are locked against rotation by detents 39′ and 41′ formed in the manner of hooks at the ends of the springs 39 and 41. When the case is closed, forcing the brackets apart, the brackets, by reason of their edges coming in contact with the springs, retract the detents and permit the gears to be rotated.

Slidably mounted in the raised elements 47 and 47′ of the bracket secured in the cover, centrally between the spindles, is a rectangular bar 52 having a raised offset central portion 53, carrying conically pointed pins 54 adapted to engage in the openings of the razor blade C, which is attracted and held upon the raised portion 53 of the bar by reason of magnetism with which it is charged

The outer extending end of the bar 52 has fixed upon it a disc 55 having a central circumferential groove 56 receptive of a screw cam 57 secured on the rear extending end of the spindle 48′ so that as the spindle is rotated, the bar 52 will be reciprocated longitudinally between the spindles.

Fixed on each of the spindles are drums 58 of uniform diameter and secured to the drums are helically wound strips 59 of leather or like material forming pliable, slightly elastic coils capable of carrying a fine abrasive powder, the coils of each spindle being reverse to that of the next adjacent and so spaced as to permit intersection between the coils in the base and cover respectively.

It will be seen that the blade C is double-edged and when not assembled with its handle and clamp, it is preferably disposed between the upper and lower pairs of support rolls, clamped safely between them when the case is closed, and further, that the blade is in position to be stropped by withdrawing and actuating the crank handle 31.

It will also be apparent that upon releasing the cover, the spring detents will engage in the teeth of the gears, which has the effect of holding the helical abrading coils in relation to the grooves of the adjacent roll.

The foregoing disclosure is to be regarded as descriptive and illustrative rather than restrictive or limitative of the invention, of which obviously an embodiment may be constructed including minor modifications, without departing from the general scope herein indicated.

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

1. A safety razor sharpener comprising a hollow body, having a hollow cover hingedly engaged therewith, cushion surfaced spring mounted rolls arranged in pairs in said body and cover to hold a razor blade, means to prevent said rolls from rotating when said cover is raised, and means of rotating said rolls when said cover is closed.

2. A safety razor sharpener comprising a pair of hinged members, pairs of rolls rotatably mounted in the hinged members, said rolls being of uniform diameter, means for manually rotating said rolls, elastic helical strips on each of said rolls, said strips being held in interposed relation, a sliding carrier for the razor blade, and means operated by the actuation of said rolls for moving the blade reciprocatively between the upper and lower pairs of said rolls.

3. A safety razor case for a double edged blade comprising a hollow body, a single hollow cover hingedly engaged therewith, spirally-ribbed rolls in said case to guard

the edges of the blade, said rolls being operative to sharpen the blade, other rolls in said cover, intermeshing gears on all of said rolls, said gears separating upon raising the cover; resiliently mounted supports for the body rolls, means on said supports to prevent the rolls from rotating when the cover is raised, and movable means to keep said blade in alinement with the axis of said rolls.

4. A razor sharpener for a double edged blade comprising a hollow body, a single hollow cover hingedly engaged therewith, abrading elements in said body, said blade being engaged by said elements when the body and cover are in closed position, spring seated supports for said elements, other abrading elements in said cover, means normally communicating rotary motion between said elements, said means separating upon raising the cover, and means combined with the support seats to prevent rotation of the elements when said cover is raised from the body.

5. A safety razor stropper for a double edged blade comprising a hollow body, a hollow cover hingedly engaged therewith, and helically grooved flexible rolls journalled therein, for simultaneously stropping all four cutting faces of the blade and means in said body to prevent the rotation of said rolls when the body is partially or entirely opened.

6. A safety razor case comprising a hollow body, a hollow cover hingedly engaged therewith, said case containing positioning means for the razor blade, a pair of rolls journalled in the body, and another pair in the cover, said rolls being in contact with the blade simultaneously with the closing of the case in one single operation and locking means to prevent the rotation of said rolls when the case is partially or entirely open.

7. A safety razor casing comprising a body, having a cover, pairs of spirally grooved abrading rolls journalled therein, gears on each of said rolls, spring detents in said casing and cover to prevent the rotation of any of the abrading rolls when the cover is raised, and means operative upon closing the cover to retract said detents.

8. A safety razor casing formed of two sections hinged to each other and adapted to be closed together, each section having mounted therein a pair of helically grooved flexible rolls, said rolls being geared to rotate in opposite directions when the sections are closed, means to prevent rotation of the rolls in either direction when the sections are opened, means for supporting a blade intermediate the roll, and means for moving the blade reciprocatively during the rotation of the rolls.

9. A safety razor casing comprising a hollow body, a hollow cover hingedly engaged therewith, helically formed rolls in said body and cover respectively and locking means to prevent the rotation of said rolls when the case is partially or entirely opened.

10. A safety razor blade sharpener comprising a pair of hollow bodies hingedly engaged with each other, a bracket secured in each of said bodies, springs supporting the ends of each bracket, a pair of sharpening rolls revolvably mounted in each bracket, a spur gear secured to each of the rolls so when said hollow bodies are closed the pair of rolls are brought into close proximity, said gears being out of mesh when said bodies are opened, means on the ends of said springs to automatically engage said gears upon separating the bodies a blade holder supported intermediate said rolls and having blade positioning members for causing both edges of the blade held thereby to be exposed to said sharpening rolls, and means extending outside of the body to operate said rolls, said rolls being effective when operated in one direction only.

11. In a razor blade sharpener the combination of a frame or casing having a lower member and upper member hinged thereto, a pair of helically grooved sharpening rolls mounted in the lower member, a blade holder having positioning means to hold a double edge blade, a pair of helically grooved sharpening rolls mounted in the upper member, means to simultaneously turn all the rolls when the members are locked to each other, and means to prevent turning any of said rolls when said casing members are opened upon their hinges.

12. In a blade sharpener for stropping safety razor blades, the combination of a casing comprising a lower member, and an upper member hinged thereto, a pair of sharpening rolls rotatably mounted in said casing, outwardly projecting helically disposed stropping surfaces provided for each roll, the stropping surfaces of each roll disposed between stropping surfaces of the other roll, gearing connecting said rolls so arranged as to be separated by movement of one member away from the other and means for maintaining them in the same angular relation until brought together, and threaded means disposed in the casing for adjusting the distance of the axes of said rolls to regulate the pressure of the rolls on the blade while being stropped.

13. In a razor blade sharpener the combination of a frame or casing having a lower member and upper member hinged thereto, a pair of helically grooved sharpening rolls mounted in the lower member, a helically grooved sharpening roll mounted in the upper member, threaded means extending from the casing substantially centrally dis-

posed intermediate said rolls for adjusting the distance of the axes of the rolls, and means to simultaneously turn all the rolls when the members are closed to each other.

14. In a blade sharpener for stropping safety razor blades, the combination of a casing comprising a lower member, and an upper member hinged thereto, a pair of sharpening rolls mounted in said casing, an outwardly projecting helically disposed stropping surface provided for each roll, the stropping surface of each roll disposed between stropping surfaces of the other roll, gearing connecting said rolls so arranged as to be separated by movement of one member away from the other and means for maintaining them in the same angular relation until brought together, and means disposed in the casing to determine the distances of the axes of said rolls to regulate the pressure of the rolls on the blade while being stropped.

15. In a razor blade sharpener, the combination of a casing having a lower and upper member hinged thereto, a pair of helically grooved sharpening rolls mounted in the lower member, blade positioning means in the casing adapted to hold a double edge blade intermediate said rolls, a pair of helically grooved sharpening rolls mounted in the upper member, a gear train connecting all said rolls and so arranged as to be separated by movement of one member away from the other, and means for maintaining them in the same angular relation until brought together.

In testimony whereof I have signed my name to this specification.

JOHN HOLTZMAN.