May 1, 1923. 1,453,409

C. A. SCOTT

RAZOR BLADE HOLDER

Original Filed Aug. 16, 1920

Fig. 1

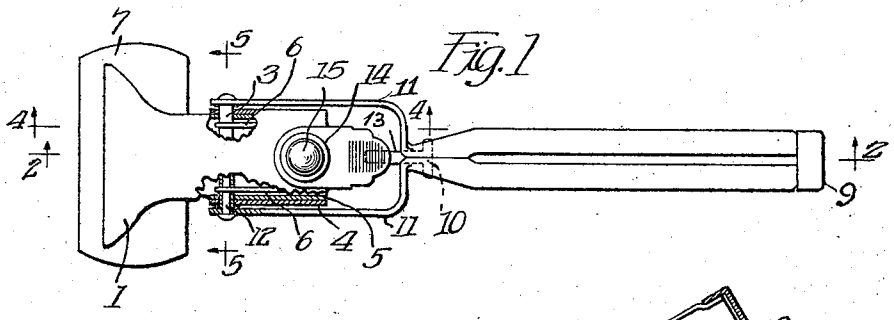


Fig. 2

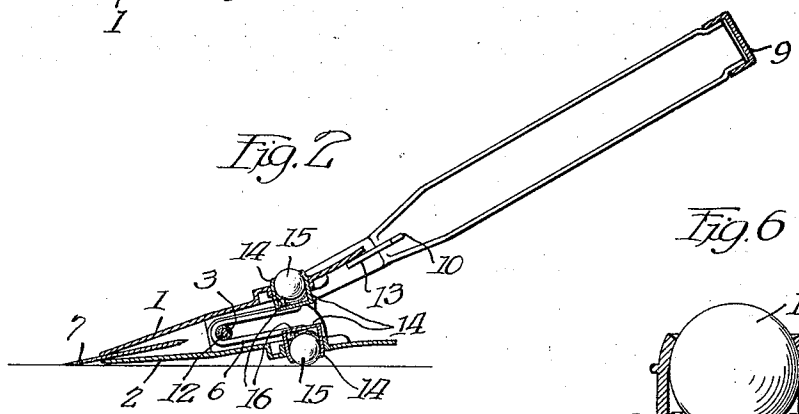


Fig. 3

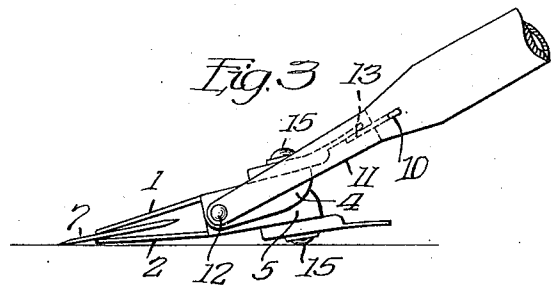


Fig. 4

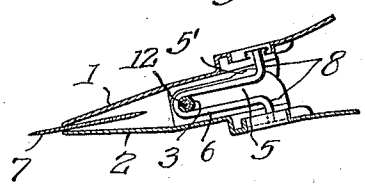


Fig. 5

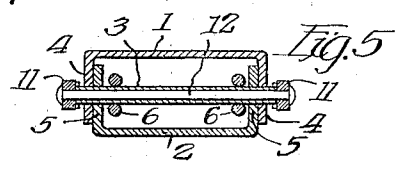
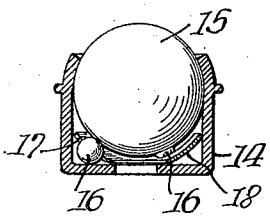


Fig. 6



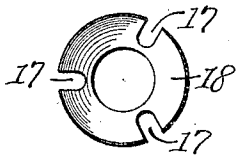


Fig. 7

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UNITED STATES PATENT OFFICE.

CLINTON A. SCOTT, OF CHICAGO, ILLINOIS.

RAZOR-BLADE HOLDER.

Application filed August 16, 1920, Serial No. 403,907. Renewed October 2, 1922. Serial No. 591,986.

To all whom it may concern:

Be it known that I, CLINTON A. SCOTT, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Razor-Blade Holders, of which the following is a full, clear, concise, and exact description.

My invention relates to devices for so holding safety razor blades that they may readily be applied to hones or other sharpening elements.

The device includes, as one of its characteristics, two pivotally connected jaws that are pressed upon an interposed blade by a spring or springs of U-form with means for limiting the opening movement of the jaws to preserve the set of the springs. These jaws are pivotally connected by means of a sleeve rivet which assembles them into a unit independently of the handle that is afterwards assembled therewith by a riveting pin passing through prongs of the handle and the bore of the riveting sleeve. There are other characteristics, the invention being more fully explained in connection with the accompanying drawing showing the preferred embodiment thereof in which Fig. 1 is a plan view with parts broken away; Fig. 2 is a sectional view on line 2—2 of Fig. 1; Fig. 3 is a view in elevation with parts of the handle broken away; Fig. 4 is a sectional view on line 4—4 of Fig. 1; Fig. 5 is a sectional view on line 5—5 of Fig. 1 on a larger scale; Fig. 6 is a sectional view through the ball bearing cup and parts therein; and Fig. 7 is a plan view of a small ball retainer.

Like parts are indicated by similar characters of reference throughout the different figures.

The blade gripping jaws 1 and 2 are pivotally connected between their front and rear ends by a riveting sleeve 3 which is passed through aligned holes in the lateral outer wings 4 of jaw 1 and wings 5 of jaw 2 that are between wings 4. This riveting sleeve constitutes a bearing upon which the wings turn when the jaws are in opening or closing movement. In assembling the sleeve rivet with the jaws it is passed through the bights of the rearwardly extending U-shaped wire springs 6 that are prevented from being withdrawn by said rivet. The springs engage the inner opposed surfaces of the jaws at the rear of their pivot to force the front edges of the jaws into clamping engagement with the safety razor blade 7. The set of each spring is increased by bringing the sides of the spring very close together, the spring still being engageable with the jaws by forming the springs with lateral or offset jaw engaging extensions 8.

The front edges of the jaws may be separated for the insertion and removal of the blades by pressing the rear ends of the jaws toward each other in opposition to the springs. The set of the springs is preserved by a distance preserving formation that limits the approach of the rear ends of the jaws. This formation is preferably an extension 5′ upon each wing 5 of the jaw 2 and at the rear of the rivet 3, these extensions being engageable with the opposite jaw when the front edges of the jaws have been separated a slight distance sufficient to permit of the movement of the blade in the space between the front ends of the jaws.

The handle is preferably split, being formed in two half portions stamped out of sheet metal. These handle portions are held in assembly by a cap or collar 9 tightly driven upon their rear ends, and a rivet 10 passing through and riveted upon the halves of the handle where the handle prongs 11 branch one from each half of the handle.

The riveting sleeve 3 is aligned with holes in the tips of the handle prongs, whereafter a riveting pin 12 is passed through the bore of the riveting sleeve and the holes in the handle prongs, being thereafter riveted to assemble the handle with the jaw unit, said riveting pin constituting a small shaft upon which the riveting sleeve turns as the jaw unit is swung in the blade sharpening operation. The range of swinging movement of the jaw unit is limited by the stem portion 13 of the T-shaped element 10—13, this stem portion projecting into the space between the rear ends of the jaws 1, 2.

Each jaw includes as a structural part thereof an insetting cup 14 upon the rear end thereof, a protruding ball 15 that rolls within the ball retaining cup upon smaller rotating balls 16 confined to centers of rotation by being received in the notches 17 of a retainer 18. The ball portion 15 of each jaw defines the angle of the blade 7 to the sharpening element. These balls make the ends of the jaws to the rear of the pivot

pin 12 heavier than the front ends so that whenever the handle is turned to reverse the blade the jaw unit will quickly turn to approximate the working angle to the hone and handle, this movement being limited by the stop 13.

Having thus described my invention I claim as new and desire to secure by Letters Patent.

1. A device for holding a safety razor blade that is to be sharpened including a pair of blade clamping jaws having lateral wings formed with aligned holes, the wings of one jaw being received between the wings of the other jaw; a riveting sleeve passing through the wings and assembled with the outer wings and upon which the inner wings may turn; a handle having prongs; a pin extending through the riveting sleeve that may turn upon the pin which is secured at its ends to said prongs; and a rearwardly extending U-shaped spring through which the riveting sleeve passes, the ends of the spring pressing against the inner faces of the rear portions of the jaws to exert closing pressure upon the jaws.

2. A device for holding a safety razor blade that is to be sharpened including a pair of blade clamping jaws having lateral wings formed with aligned holes, the wings of one jaw being received between the wings of the other jaw; a riveting sleeve passing through the wings and assembled with the outer wings and upon which the inner wings may turn; a handle having prongs; a pin extending through the riveting sleeve that may turn upon the pin which is secured at its ends to said prongs; and a rearwardly extending U-shaped spring through which the riveting sleeve passes, the ends of the spring pressing against the inner faces of the rear portions of the jaws to exert closing pressure upon the jaws, an inner wing being extended to limit the opening movement of the jaws.

3. A device for holding a safety razor blade including pivotally connected blade clamping jaws; a split handle having two prongs, one upon each part of the handle, upon which said jaws are mounted to turn as a unit between their forward and rear ends; and a T-shaped element adjacent said prongs and whose head portion constitutes a rivet that unites the handle parts together adjacent said prongs and whose stem portion extends into the space between the rear ends of the jaws to limit the swinging movement thereof upon the handle.

4. A device for holding a safety razor blade including pivotally connected blade clamping jaws; a handle upon which said jaws are pivoted between their forward and rear ends to swing as a unit upon said handle; and a rearwardly extending U-shaped spring, the ends of the spring pressing against the inner faces of the rear portions of the jaws to exert closing pressure upon the jaws, said spring being laterally extended to decrease the space between its sides while maintaining engagement with the jaws.

5. A device for holding a safety razor blade including pivotally connected blade clamping jaws; a handle upon which said jaws are pivoted between their forward and rear ends to swing as a unit upon said handle; a rearwardly extending U-shaped spring, the ends of the spring pressing against the inner faces of the rear portions of the jaws to exert closing pressure upon the jaws, said spring being laterally extended to decrease the space between its sides while maintaining engagement with the jaws, and a portion upon the jaw structure that extends between the branches of said spring to prevent the withdrawal of the spring.

6. A device for holding a safety razor blade including pivotally connected blade clamping jaws; a handle upon which said jaws are pivoted between their forward and rear ends to swing as a unit upon said handle, each of said jaws having an insetting cup upon the rear end thereof; balls protruding outwardly from said cups; smaller balls within the cups upon which the larger balls turn; and ball retainers within the cup and positioning the smaller balls.

In witness whereof, I hereunto subscribe my name this 13th day of August A. D. 1920.

CLINTON A. SCOTT.