

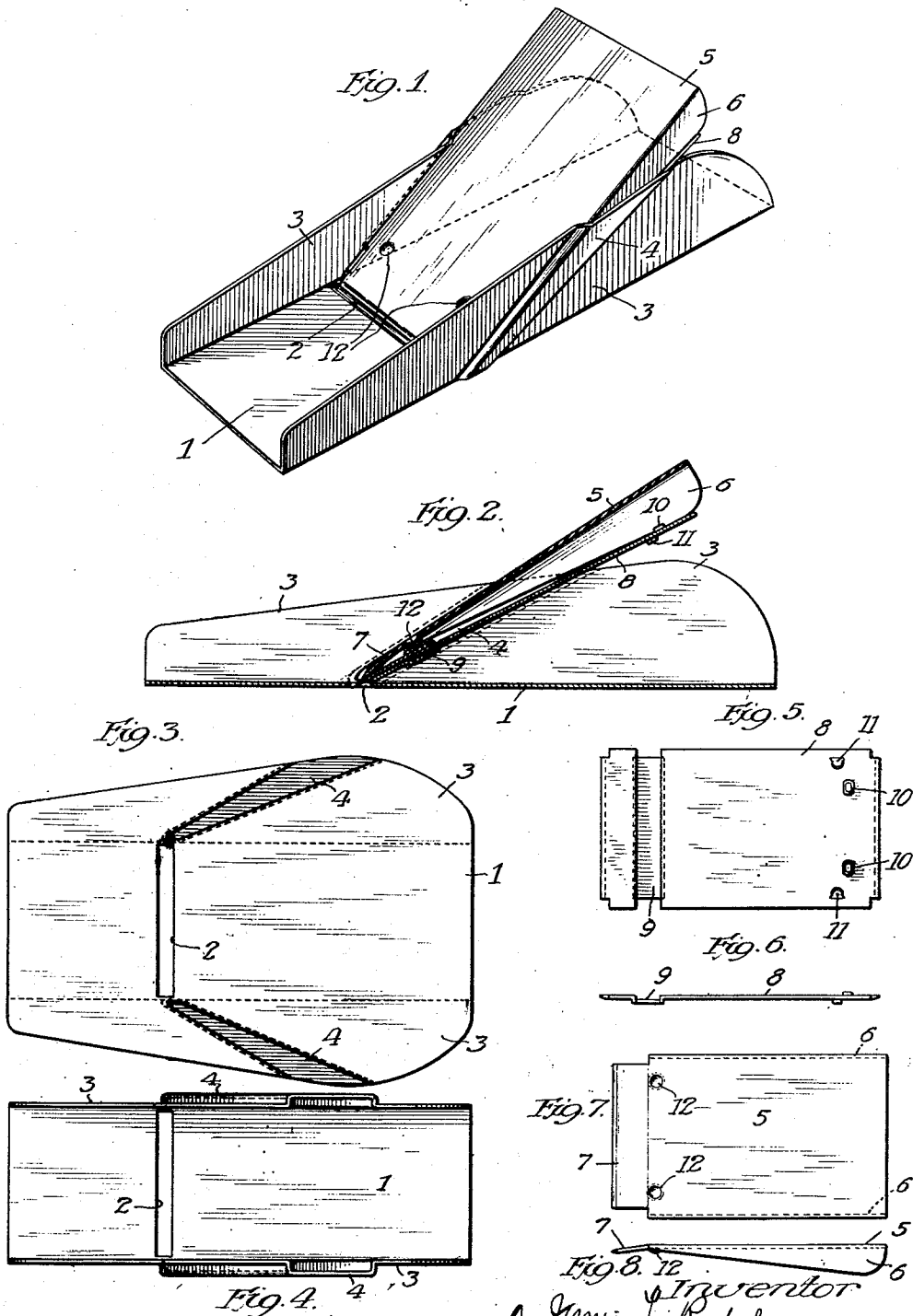
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HAND PLANE

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UNITED STATES PATENT OFFICE

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HAND PLANE

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My invention relates to a small hand plane, of simple construction, designed to employ as the cutter or bit of the tool, a safety razor of one or the other of several well-known kinds, which may readily be replaced when dulled by use. Inasmuch as these blades are still exceedingly sharp after being dulled to such an extent as to be no longer satisfactory for shaving, and as they are of high quality, I am enabled to provide a most efficient little plane, which by replacement of discarded razor blades from time to time, may readily be kept serviceable without the annoyance of resharpening the bit incident to planes of the conventional type. The novel features of my invention will be apparent from the detailed description of the device hereinafter given, the essential elements of my invention being more particularly pointed out in the appended claims.

In the accompanying drawing, Figure 1 is a perspective of my novel plane;

Fig. 2 is a longitudinal vertical section of the same;

Fig. 3 is a plan view of a partly bent sheet metal blank from which the body of the plane is formed, the longitudinal dotted lines indicating the lines of subsequent bends between the bottom and sides of the body member;

Fig. 4 is a top plan view of the completed body member formed by bending up the sides of such blank;

Fig. 5 is a plan view of a blade holder formed with engaging portions arranged to engage and support one or the other of several different forms of safety razor blades in common use;

Fig. 6 is an edge view of the same;

Fig. 7 is a plan view of a wedge member, and

Fig. 8 is a side view of the same.

Like reference numerals indicate like parts in all the figures of the drawing.

All the parts of my novel plane are, or conveniently may be, formed of sheet steel stampings. The stock or body member (see Figs. 1, 3 and 4) is formed with a flat bottom section 1, transversely of which runs the slot 2 through which the blade protrudes. The sides 3—3 are formed with outwardly extending wedge-shaped off-sets 4—4 extending from points closely adjacent the ends of the slot 2 rearwardly and upwardly, the upper and lower walls of the recess thus formed on such of the two sides providing opposite seats for the blade holder and the wedge member 5 next to be described.

This wedge member (see Figs. 7 and 8) of the plane is formed of a flat central portion having at its opposite sides tapering downwardly bent wings 6—6, and at its forward end is notched or slightly cut away at its corners to define a lip 7 which in the assembled tool overlies and forms a backing for an interposed razor blade carried by the tool holder beneath it. The forward lower edge of this lip is preferably beveled to fit smoothly against the blade, so that no ledge will be presented at the joint between the blade and the upper face of the wedge.

The blade holder 8 (see Figs. 5 and 6) is transversely of the same width as the outside transverse dimensions of the wedge member 5, so that it extends into the offsets 4—4, and adjacent each edge engages the narrow upper wedge face of the lower wall of the recess on the particular side. In the assembled tool the wings 6—6 of the wedge member rest upon the upper face of the blade holder along its opposite sides. The corners of the blade holder are notched as shown, to provide for reversal and permit either end to extend into the slot 2 of the body member. In the present instance the blade holder is formed with engaging means arranged to position and confine in position either one of the different well-known styles of razor blades. To this end the blade-holder near one end is formed with a transverse offset 9 arranged to receive the reinforced rear edge of the Ever-ready razor blade, while at the opposite end it is formed on one side with a pair of bosses 10—10 (conveniently stamped from the opposite side) to engage the orifices of Gillette blades, and on the other side is formed with lugs 11—11 arranged to engage Valet autostrop blades.

The wedge member, it may here be explained, is preferably formed with a pair of downwardly extending cup-shaped pro-

tuberances or bosses 12—12 which contact with the top of a razor blade assembled in engaged position between the forward portions of the blade holder and wedge member.

- 5 Preferably the dimensions of the wedge member with relation to the plane body are such that the outer faces of the wings of the wedge will frictionally but yieldingly engage the contiguous side bases of the recesses of
10 the body member, the inherent resiliency of the sheet metal parts permitting a yielding frictional engagement which serves to assist the wedging action of the upper and lower faces of the recesses upon the wedge mem-
15 ber and blade carrier in holding the parts together firmly in operative relation.

I claim:

1. A plane comprising a sheet metal stock having a slotted bottom portion and offset
20 side portions formed with tapering recesses providing upper and lower wedge faces, a blade holder, and a wedge member arranged to seat upon said blade holder against such a razor or blade interposed therebetween, the
25 opposite outer edge portions of said assembled blade holder and wedge member extending into said recesses of the stock and being arranged to make wedging engagement with the wedge faces thereof.

- 30 2. A plane comprising a stock having sides formed with tapering recesses providing upper and lower wedge faces and a connecting flat inner face, a blade holder, a cutter blade engaged by said blade holder, and a resilient
35 sheet metal wedge member formed with a flat central portion and depending tapering wing portions arranged to seat upon the opposite outer edge portions of said blade holder, the opposite outer edge portions of said
40 assembled blade holder and the wing portions of said wedge member extending into said recesses of the stock and being arranged to make wedging engagement with the wedge faces thereof and the outer faces of said wing
45 portions being arranged to make yielding frictional engagement with said flat inner faces of the recesses of the stock.

3. A plane comprising a sheet metal stock having a slotted bottom portion and offset
50 side portions formed with tapering recesses providing upper and lower wedge faces, a blade holder formed with means for engagement with a given style of safety razor blade,
55 and a sheet metal wedge member formed with a flat central portion and depending tapering wing portions arranged to seat upon the opposite outer edge portions of said blade holder, the central portion of said wedge
60 member being formed adjacent its forward end with downwardly extending bosses arranged to contact a razor blade engaged by said blade holder, and the opposite outer portions of said blade holder and wedge member
65 assembled together being arranged to extend

into the recesses of said stock and make wedging engagement with the wedge faces thereof.

In testimony whereof, I have subscribed my name.

JAMES L. RUBEL.

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