No. 842,556. PATENTED JAN. 29, 1907.

T. E. JONES.

DEVICE FOR CUTTING PISTON PACKING OR THE LIKE.

APPLICATION FILED OCT. 29, 1906.

Fig. 1.

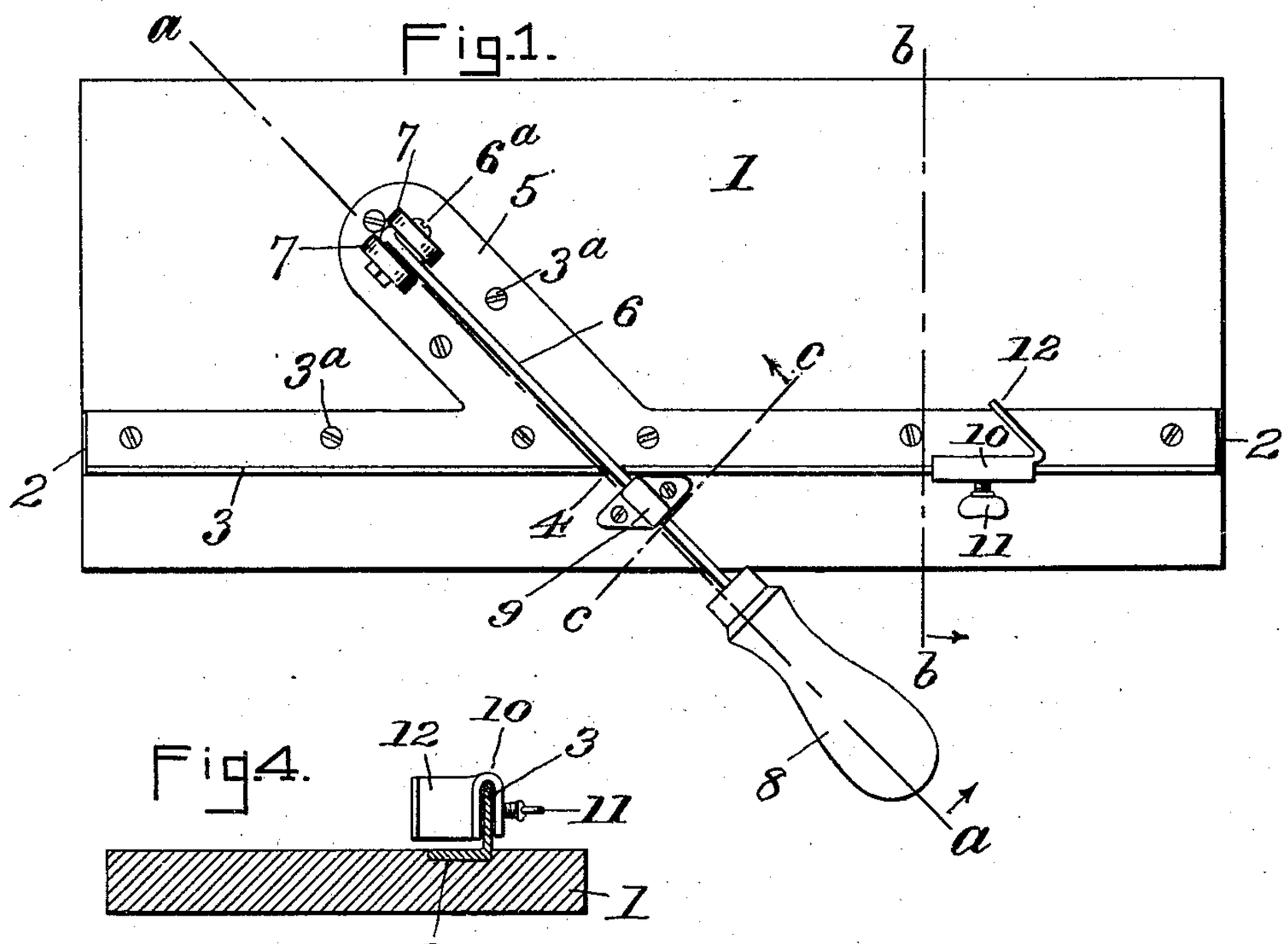

Fig. 4.

Fig. 2.

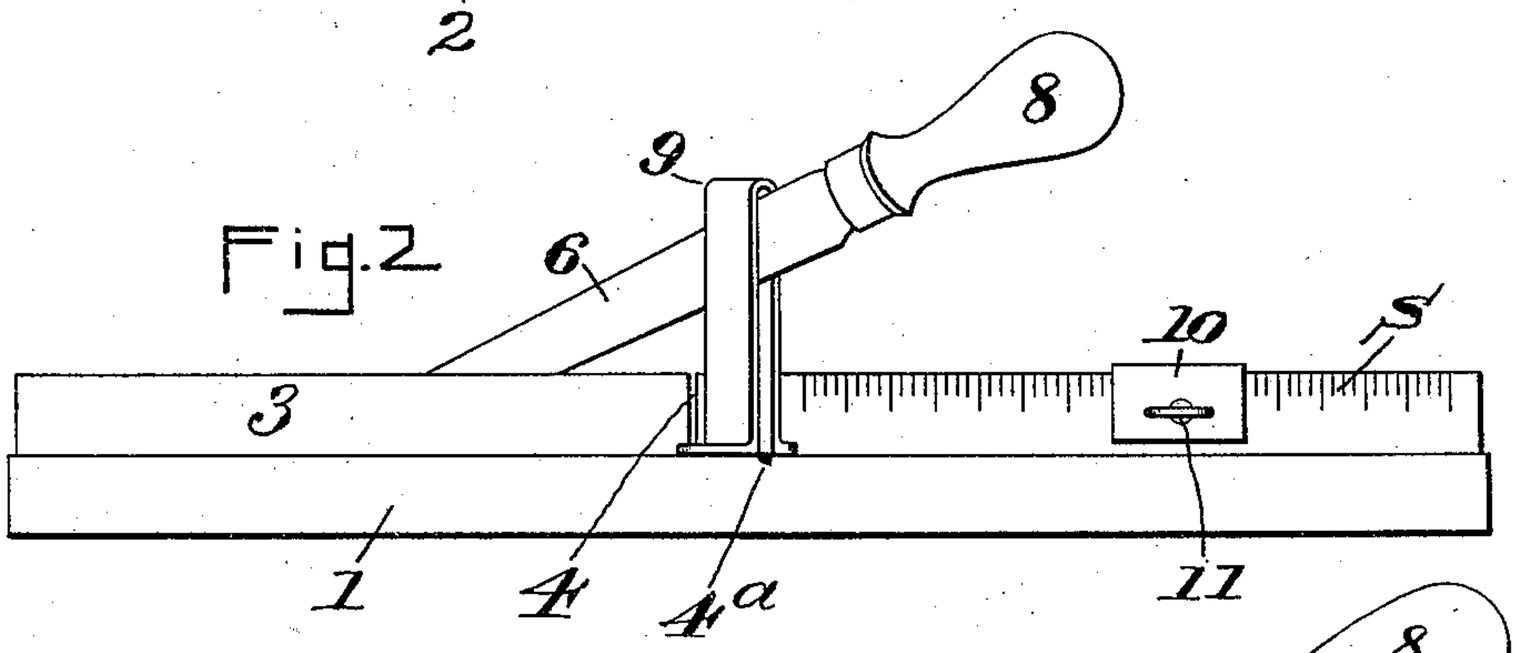

Fig. 5.

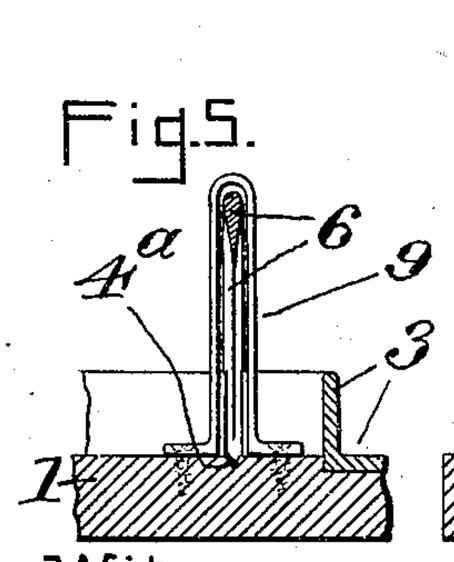

Fig. 3.

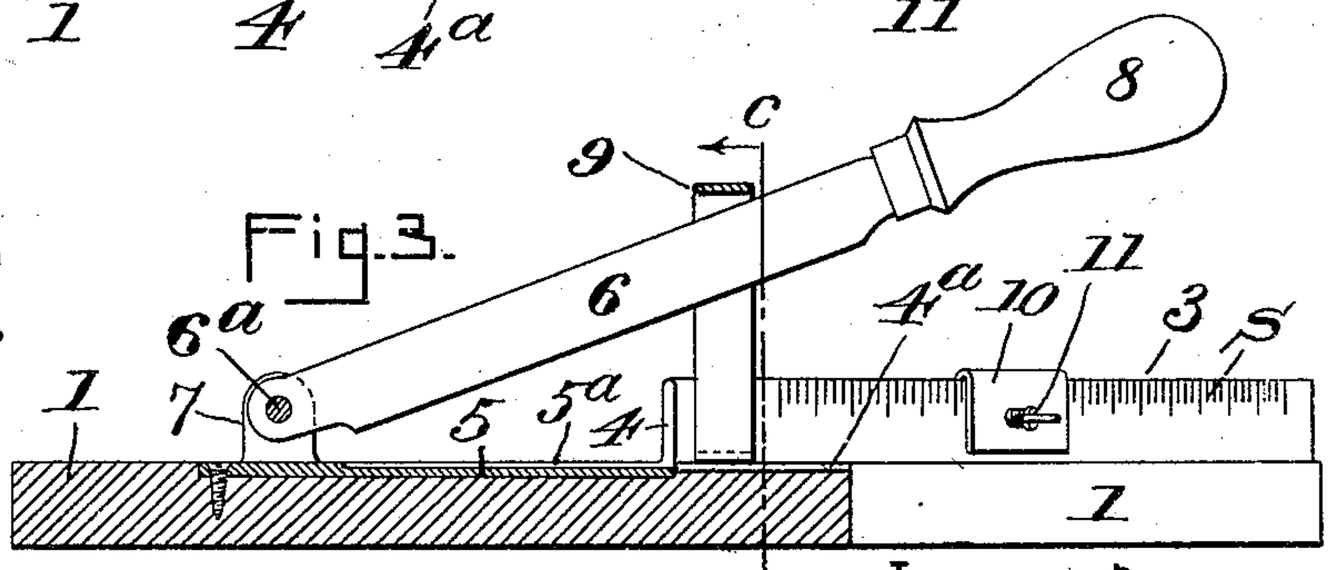

Fig 6

Witnesses

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UNITED STATES PATENT OFFICE.

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DEVICE FOR CUTTING PISTON-PACKING OR THE LIKE.

No. 842,556. Specification of Letters Patent. Patented Jan. 29, 1907.

Application filed October 29, 1906. Serial No. 340,967.

To all whom it may concern:

Be it known that I, THOMAS E. JONES, a citizen of the United States of America, and a resident of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Devices for Cutting Piston-Packing or the Like, of which the following is a specification.

This invention relates to an improvement in devices for cutting piston-packing or the like; and it consists in a base-board or cutting-block, a longitudinal wall or guideway along one edge of said base-board, a knife pivotally connected at one end to the top face of said base-board and projecting obliquely to said guideway over said base-board, an upright slotted guide in which said knife reciprocates vertically, and a setting-gage adjustably held on said longitudinal wall or guideway for movement to and from the path of operation of said knife, the whole being constructed, arranged, and adapted to be operated for the purpose of cutting piston-packing or the like in suitable lengths and with its opposite ends at angles oblique to the length.

The object of the invention is to readily and accurately cut piston-packing into the desired lengths and with the opposite ends at the desired angles, so that a close and proper fit may be secured when placing said packing in position for use.

In the accompanying drawings, which serve to illustrate my invention, Figure 1 is a plan view of my device; Fig. 2, a longitudinal front elevation of the device, showing the knife or blade raised and the setting-gage in position for an oblique cutting operation; Fig. 3, a sectional elevation taken on the line *a a* of Fig. 1; Fig. 4, a transverse sectional elevation taken on the line *b b* of Fig. 1, showing the setting-gage, the longitudinal wall or guideway, and the base-board; Fig. 5, a fragmentary sectional elevation taken on the line *c c* of Figs. 1 and 3; and Fig. 6 a plan view broken out midway and showing a strip of packing with one end cut obliquely and the other end still square, but the latter end being ready for a cut at the same angle as the first-named end.

In these views, 1 represents the base-board or cutting-block rectangular in shape and provided near its fore edge with a broad plane groove or countersink 2.

3 is a guideway, L shape in cross-section, with its base resting in the groove or countersink 2, parallel to the longitudinal fore edge of the base-board and secured by means of screws 3^a.

4 is an open slot cut in the upright portion of the guideway 3 about mid-length of the latter, and 5 is an extension-plate integrally made on the inner edge of the horizontal portion of the guideway and arranged oblique to the latter, screws 3^a being used to secure said extension to the base-board. The horizontal portion and the oblique extension of the guideway set flush with the upper face of the base-board, as best seen in Fig. 3.

4^a is a groove made in the base-board 1, oblique to its longitudinal fore edge and extending from the lower end of the slot 4 to the said fore edge.

5^a is a groove made along the center of the extension-plate 5, parallel to its side edges, as seen in Fig. 3, and extending from the slot 4 to a point near the rear end of the plate 5.

6 is a knife or blade pivotally connected, by means of a bolt 6^a, to the upright lugs 7 7 at the inner end of the oblique extension 5 and projecting outwardly in an oblique direction over the grooves 4^a and 5^a to and beyond the guideway 3, a handle 8 being provided at its outer end for convenient manipulation. This knife or blade 6 is adapted to reciprocate vertically above and in the slot 4 of the guideway, and an upright vertically-slotted guide 9 is provided on the base-board adjacent the slot 4 in the guideway, but adjacent the outer face of the upright portion of said guideway, such guide 9 permitting the ready movement of the knife in either direction vertically, but preventing any lateral movement of said knife, especially in its downward stroke, when cutting a strip of packing or the like that is placed against said upright portion of the guideway. The grooves 4^a and 5^a permit the knife to pass through and clear the strip in cutting.

10 indicates a setting-gage adjustably secured to the upright portion of the guideway 3 by means of a set-screw 11. The body portion of this setting-gage is made inverted-U shape in cross-section, and the gage portion proper, 12, projects at an angle of forty-five degrees to said body portion, as best seen in Fig. 1, and to suit the degree at which the two ends of the packing are to be cut.

S represents a graduated scale made on the outer face of the upright portion of the guideway 3 and divided off into inches or the like for use in readily setting the gage 10 in position to suit the desired length of the strip of packing to be angled at its ends.

For rigidity and economy in constructing the device the L-shape guideway, its oblique extension-plate 5, and the upright lugs 7 7 are preferably cast integral.

In the operation of the device, the gage 10 having been first set to suit the desired length of the strip to be used, a strip of packing P, such as that seen in Fig. 6, is placed in the guideway, with the end to be trimmed or cut at an oblique angle resting under the path of movement of the knife or blade, the latter being manipulated by depressing the handle 8 and a true cut effected across the said strip. The strip is then fed or pushed forward under the cutter along the guideway toward the gage till its already-trimmed oblique end O seats in the bent-over portion 12 of the gage, and then the knife is depressed through the material of the strip, as before, thus producing two oblique ends exactly alike and that will fit in intimate contact when the packing is put into place in a piston or elsewhere for use. A thin shaving or trimming of the ends of the packing is easily made at any time, so as to have said opposite ends of the packing in close contact when in place.

I claim—

1. An angle-cutting device for piston-packing or the like, comprising a base-board, a guideway longitudially mounted on said base-board and having a vertical open slot therein, a knife or blade pivoted at one end to said base-board and extending at an oblique angle to said guideway and adapted to be moved vertically in said open slot of the latter in the cutting operation.

2. An angle-cutting device for piston-packing or the like, comprising a base-board, a guideway longitudinally mounted on said base-board and having an open vertical slot therein, a knife or blade pivoted at one end to said base-board and projecting obliquely across the latter for operation in said open slot and a vertical, slotted guide through which said blade passes and in which it reciprocates vertically in the cutting manipulation thereof.

3. An angle-cutter for piston-packing or the like, comprising a base-board, a guideway longitudinally mounted on said base-board and having a vertical opening or slot therein, a knife or blade pivotally connected at one end to said base-board and projecting obliquely therefrom and adapted to be moved vertically in said open slot, and a setting-gage adjustably mounted on said guideway and having an obliquely-arranged arm thereon.

4. An angle-cutter for piston-packing or the like, comprising a base-board, an L-shape guideway longitudinally mounted on said base-board and having an open slot therein, an obliquely-arranged plate projecting integrally from the base of said L-shape guideway and secured to said base-board, a pair of spaced lugs at the rear end of said oblique plate, a knife pivotally mounted at its inner end on said lugs and projecting obliquely from the latter in line for engagement with said open slot of the guideway, a vertical, slotted guide for said knife, and a setting-gage adjustably mounted on said L-shape guideway and having an obliquely-arranged arm thereon.

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Witnesses:
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