

KNIFE.

Patented Dec. 14, 1909.

2 SHEETS—SHEET 1.

[illegible]

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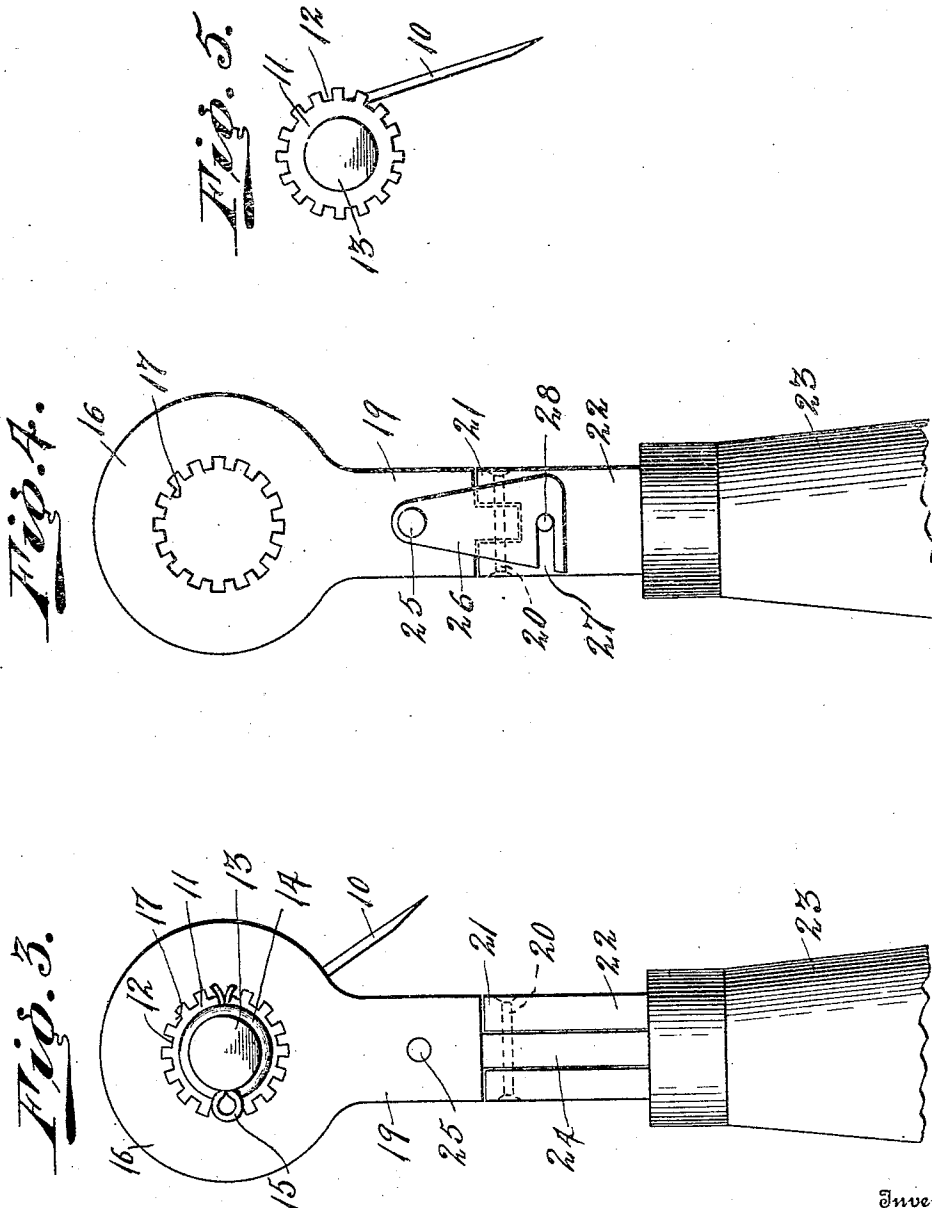
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KNIFE.

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2 SHEETS—SHEET 2.

943,184.



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UNITED STATES PATENT OFFICE.

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KNIFE.

943,184.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, THOMAS C. FRADSHAM, a citizen of the United States, residing at Carson City, in the county of Ormsby, State of Nevada, have invented certain new and useful Improvements in Knives; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to drawing knives employed by carpenters, cabinet makers and other workmen, more particularly to improvements of this character which are provided with adjustable and foldable handles, and has for one of its objects to simplify and improve the construction and increase the efficiency and utility of devices of this character.

Another object of the invention is to provide a simply constructed device of this character wherein the handle portions are adapted to be adjusted to set the blade of the knife at any desired angle relative to the handles, and likewise to fold the handles into position in substantial parallel relations to the blade or to support them at right angles thereto as may be required.

The improved device consists generally in a blade having cylindrical bearings at the ends with spaced longitudinal teeth in the cylindrical bearings, handle stocks mounted for adjustment upon said toothed bearings, a handle member for each stock, and means for clamping the handle members to the stock, the handle members having longitudinal recesses to bear over the blade of the knife when in folded position, whereby the handle is rigidly and adjustably coupled to the bearing and the blade.

The invention consists in certain novel features of construction as hereafter shown and described and then specifically pointed out in the claims, and in the drawings illustrative of the preferred embodiment of the invention, Figure 1 is a plan view of the improved device in open or operative position. Fig. 2 is a plan view with the handle parts folded. Fig. 3 is an end elevation enlarged of the improved implement arranged as in Fig. 1. Fig. 4 is a view from the inside of one of the handle members. Fig. 5 is an end view of the blade por-

tion of the improved device including one of the toothed cylindrical terminals.

The improved device comprises a drawing knife blade 10 of the usual form and with cylindrical bearing 11 at the ends, the bearings having spaced longitudinal channels or grooves 12 in their peripheries forming spaced teeth, as shown. The operating handles for the knife are connected adjustably to the bearings 11, and as these handle devices are substantially alike a description of one will suffice for both. Extending from each of the cylindrical bearings 11 is a stud 13 of less diameter than the bearings and around each stud a coil spring 14 is arranged, the coil springs maintained in position by cotter pins 15 or other suitable means. Fitting over each bearing 11 is a head member 16, the aperture of each head member having inwardly projecting teeth or lugs 17 engaging over the teeth formed by the grooves 12 of the bearings, the springs 14 bearing against the outer faces of the head members and maintaining them yieldably in position, while a transverse pin 18 extends through each bearing at its inner end and serves to limit the inward movement of the head member 16. By this simple means it will be obvious that the members 16 are maintained rigidly in position upon the cylindrical bearings, but may be readily adjusted thereon to alter the inclination of the blade 10 relative to the handle members by simply pressing the members 16 outwardly against the resistance of the spring until the member 16 is free from the bearings, when the latter may be rotated to any required extent to set the cutting edge of the blade 10 at any angle relative to the head member and then releasing the head member and permitting it to return to its former position over the cylindrical bearing with the teeth 17 in another set of the grooves 12. By this means it will be obvious that the blade 10 may be adjusted to any required extent, and maintained rigidly in its adjusted position. The interengaging teeth in the bearings of the knife and the aperture of the handle extending longitudinally of the cutting edge of the knife, the strains are all exerted circumferentially of the bearing, and no lateral thrust is produced upon the handle head, as will be obvious. This is an important feature of

the invention, and adds materially to the utility and efficiency of the device.

The head members 16 are each provided with a projection 19 reduced at the outer
 5 end to form one member of a hinge, and coupled by a pintle 20 to the reduced portion is a forked portion 21 of a handle stock 22, the stock having a suitable handle 23. Attached to the stock 22 in any suitable
 10 manner is a resilient bar or stop spring 24, the free end of the stop spring bearing against the reduced portion of the member 16, and maintaining it yieldably in position in longitudinal alinement with the stock 22.
 15 Swinging at 25 from the projection 19 of the member 16 is a latch member 26 having an open transverse slot 27 near its free end fitting over a pin 28 projecting from the stock 22. The latch member 26 it will be
 20 noted is located at the opposite sides of the members 19—22 from the stop spring 24, the stop spring and latch thus coacting to provide a rigid coupling between the portions 19—22 when the latch member is in
 25 operative position, but which may be readily released by swinging the latch laterally to enable the handle 23 and its stock to be folded into position substantially parallel with the longitudinal plane of the blade, as
 30 shown in Fig. 2, the handle members 23 having longitudinal recesses 29 to fit over the cutting edge of the blade, and thus provide a guard to the latter when the implement is in folded position. By this simple
 35 arrangement it will be obvious that the blade 10 may be adjusted to any required extent to enable the workman to apply the implement with greater precision and skill and without danger of striking the knuckles
 40 of the hands when doing certain kinds of work.

With an implement thus described the direction of inclination of the blade may be changed to any required extent to adapt
 45 the implement to the work required.

The device is simple in construction, can be inexpensively manufactured, and operates effectually for the purpose described.

What is claimed, is:—

50 1. In an implement of the class described a drawing knife blade having cylindrical bearings at the ends, said bearings having spaced teeth in their peripheries and extending longitudinally thereof, handle heads
 55 having apertures engaging respectively over said bearings and with spaced lugs within the apertures and engaging the teeth of the

bearings, and yieldable means for maintaining said heads in position upon said cylindrical bearings. 60

2. In an implement of the class described a drawing knife blade having cylindrical bearings at the ends, said bearings having spaced teeth in their peripheries and extending longitudinally thereof, handle heads 65 having apertures engaging respectively over said bearings and with spaced lugs within the apertures and engaging the teeth of the bearings, yieldable means for maintaining said heads in position upon said cylindrical 70 bearings, handles swinging from said handle heads, and means for locking said handles in longitudinal alinement with said handle heads.

3. In an implement of the class described 75 a drawing knife blade having cylindrical bearings at the ends, and with reduced portions extending beyond the cylindrical portion, said cylindrical portions having longitudinally extending spaced teeth in their peripheries and extending longitudinally thereof, handle heads having apertures engaging respectively over said bearings and with spaced lugs within the apertures and engaging the teeth of the bearings, and springs 85 upon said reduced portions and bearing against the handle heads.

4. In an implement of the class described a drawing knife blade having cylindrical bearings at the ends, said bearings having 90 spaced teeth in their peripheries and extending longitudinally thereof, handle heads having apertures engaging respectively over said bearings and with spaced lugs within the apertures and engaging the teeth of the 95 bearings, said handle heads having depending stocks terminating in a hinge member, said handle having a projecting stock provided with an opposing hinged member and movably coupled to the hinge member of the 100 head stock, a resilient stop carried by the stock of the handle and engaging against the stock of the head, and a latch device swinging from one of said stock members and provided with a lateral slot at its free 105 ends, and a pin extending from the other stock member in position to be engaged by the slots of the latch.

In testimony whereof, I affix my signature, in presence of two witnesses.

THOMAS C. FRADSHAM.

Witnesses:

W. H. KIRK,
T. A. LOTZ.