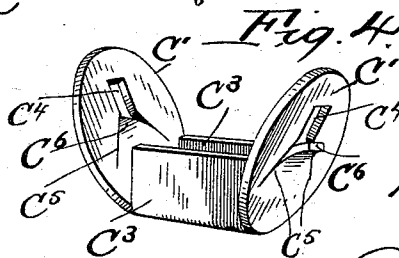
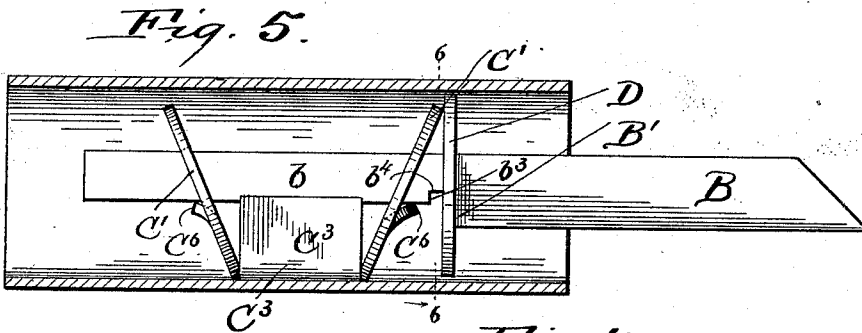
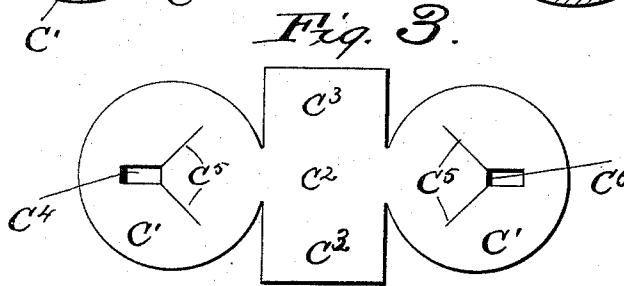
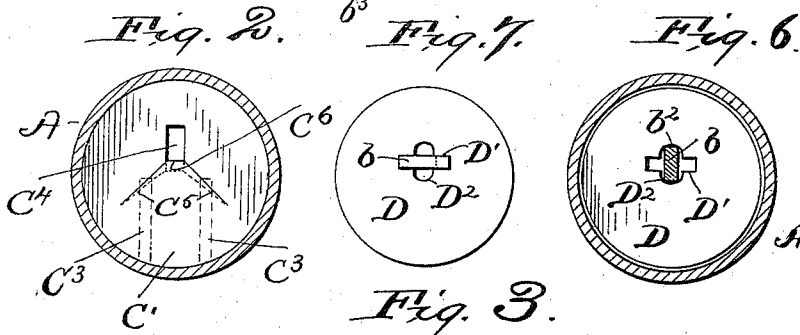
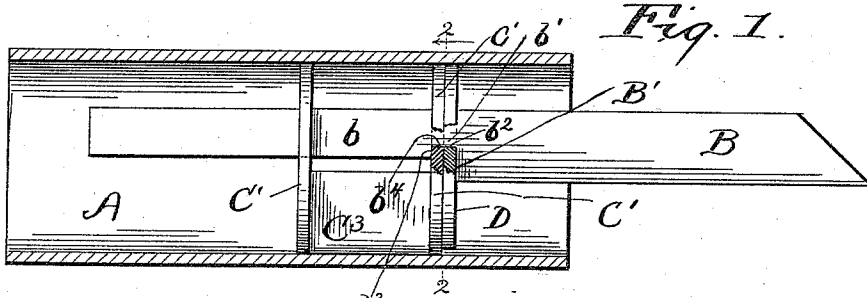


(No Model.)

H. S. BUCKLAND.
TOOL SECURING DEVICE.

No. 526,290.

Patented Sept. 18, 1894.



Witnesses.
E. B. Gilchrist
[Signature]

Inventor.
Horace S. Buckland

[Signature]
his Attorneys.

UNITED STATES PATENT OFFICE.

HORACE S. BUCKLAND, OF FREMONT, OHIO.

TOOL-SECURING DEVICE.

SPECIFICATION forming part of Letters Patent No. 526,290, dated September 18, 1894.

Application filed March 19, 1894. Serial No. 504,199. (No model.)

To all whom it may concern:

Be it known that I, HORACE S. BUCKLAND of Fremont, in the county of Sandusky and State of Ohio, have invented certain new and useful Improvements in Tool-Securing Devices; 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 pertains to make and use the same.

My invention relates to improvements in means for securing or fastening the working member of a tool, such, for instance, as a knife-blade, within a chambered handle, ferrule, shell or holder, the object being to provide a securing-device for the purpose indicated that is exceedingly simple in construction and inexpensive; that possesses great durability and can be easily applied, and whereby the member of the tool to be secured within the handle, ferrule or holder is so firmly held in place that it is not liable to work loose in the use of the tool.

With this object in view, my invention consists in certain features of construction and in combinations of parts hereinafter described and pointed out in the claims.

In the accompanying drawings, Figure 1 is a side elevation, partly in central longitudinal section, showing a knife-blade secured within a chambered handle, ferrule or holder by my improved securing-device. Fig. 2 is a transverse section on line 2—2, Fig. 1, looking in the direction of the arrow. Fig. 3 is a plan of a blank employed in the formation of the securing-device. Fig. 4 is a perspective view, showing the blank bent into the shape required preparatory to its insertion into the handle, ferrule or holder. Fig. 5 is a side elevation, partly in central longitudinal section, exhibiting the manner of assembling the parts preparatory to securing them in place. Fig. 6 is a transverse section on line 6—6, Fig. 5, looking in the direction of the arrow. Fig. 7 is an elevation showing the manner of applying the abutment-disk or plate, D, hereinafter described.

Referring to the drawings, A designates a chambered handle, ferrule or holder in which is introduced and suitably secured the working-member of the tool, such, for instance, as

a knife-blade B illustrated in the drawings that form a part of this application.

The means shown for securing the knife-blade within the handle, ferrule or holder is formed of a single piece preferably of sheet metal, said piece being shaped as shown in Fig. 3, and comprising three members C' C' C² arranged in line, as shown, with the two end-members C' C' substantially the same in construction, and adapted, when bent laterally as will hereinafter appear, to fit the handle, ferrule or holder, internally. The blank is bent into the shape shown in Fig. 4, that is, the central member C² of the blank, at two points located a suitable distance apart, is bent laterally, as at C³, in the same direction and on lines extending longitudinally of the blank, and the end-members C' C', at the junction of said members with the central-member C², are bent laterally in the same direction so as to be capable of being subsequently folded or pressed against the adjacent end of the laterally-bent portions or wings C³ of members C², wings or members C³ forming stops to prevent members C' C' being pressed laterally too far. The end-members C' C' of the blank, at or near the central portion, are perforated laterally, as at C⁴, to accommodate the reception of the knife-blade or working-member B of the tool.

Each member C' of the blank is provided with two slots or slits C⁵ in open relation with perforation C⁴ in order to form a lip or tooth C⁶. The central perforations or holes C⁴ are of such size and shape as to nicely receive the shank b of member B of the tool and lips or teeth C⁶ are bent or project somewhat outwardly, as shown in Fig. 4, so that when the parts are assembled and secured in place, as shown in Fig. 1, with members C' C' tightly engaging the handle or ferrule internally, lips or teeth C⁶ formed upon members C' C' are straightened into line with the body-portion of the respective member C' and thereby caused to bite or tightly engage the adjacent portion of shank b of member B, resulting in firmly securing the knife-blade or working-member of the tool within its handle, ferrule or holder.

The parts are assembled, as shown in Fig. 5,

the knife-blade or working-member of the tool having been inserted into the blank bent as shown in Fig. 4, and the bent blank and knife-blade having been introduced into the handle, ferrule or holder, as appears in Fig. 5. The parts, having been assembled as just described, are then secured together by straightening or bending the end-members C' of the blank with their lips or teeth C⁶ against the adjacent end of the laterally-bent members or wings C³ of the central member C² of the blank.

End-members C' C' and their lips or teeth C⁶ are preferably bent or straightened against the adjacent ends of wings or stops C³ of the central member C² of the blank by pressure afforded by any suitable tool introduced into one end of the handle, ferrule or holder, at one end of the securing-device, and an abutment, such, for instance, as a disk or plate D is introduced within the handle, ferrule or holder at the opposite end of the securing-device, as shown in Figs. 1 and 5, to prevent the securing-device and knife-blade from being displaced within the handle, ferrule or holder by the pressure employed in fastening the parts together, as hereinbefore described. The abutment-plate or disk is preferably placed upon the knife-blade or member B before the latter is introduced into the securing-device and engages a shoulder B' formed upon the knife-blade at the inner end of the shank of said blade. The shank of blade or member B, where the latter is embraced by disk or plate D, when the latter is in position abutting shoulder B', is preferably reduced in size, as at b', thereby forming a recess b². Disk or plate D is slotted or perforated laterally, as at D', to enable it to be slipped (see Fig. 7) over one end preferably the shank-end of blade or member B into the position embracing the reduced portion b' of the knife-blade, and said perforation D' is enlarged centrally, as at D², (see Figs. 6 and 7) to enable the disk or plate and knife-blade to be turned relative to each other when the disk or plate is in position abutting shoulder B'.

The enlarged portion D² of the slot perforation D' in disk or plate D is just large enough to receive the reduced portion b' of the knife-blade and to permit or accommodate the turning of the knife-blade within the plate or disk when the latter is in position abutting shoulder B'. Hence, it will be observed that when said disk or plate is in position, with the enlargement D² of slot D' engaged by reduced portion b' of the knife-blade, as shown in Figs. 1 and 6, shoulder b³, that constitutes an end-wall of recess b², forms a stop to prevent the displacement of said disk or plate from the knife-blade.

It will be observed that by my improved construction the knife-blade or working-member of the tool is arranged centrally relative to the receiving-handle, ferrule or holder, and

I would also remark that recess b² in the knife-blade or working-member of the tool is enlarged, as at b⁴, to receive the adjacent lip or tooth C⁶ of the securing-device, said lip or projection being large enough to enter the recess when the parts are secured in place as hereinbefore described, and as shown in Fig. 1. By the construction hereinbefore described, it is obvious that the knife-blade or working-member of the tool cannot possibly become displaced endwise, or work itself loose, in the operation of the tool. I would also remark that the two slits C⁵ made in the blank in the formation of lips or teeth C⁶, diverge from the connecting perforation C⁴, as shown very clearly in Figs. 2 and 4, the object being to make the lips or teeth of such size that they shall engage with wings or stops C³ of the central member of the blank in the final operation of securing the parts together and be thereby positively bent into the position required to properly engage the shank of the knife-blade or working-member of the tool.

I would remark that shoulder B' on knife-blade or member B might be employed alone as an abutment for the securing-device, but I prefer the use of the abutment-disk or plate hereinbefore described.

What I claim is—

1. The combination with the working-member of a tool and the handle, ferrule or holder for receiving said member, of a securing-device consisting of two securing-members C' C' suitably fitting the handle or holder internally and located a suitable distance apart and one or more stops between said securing-members for limiting the movement of the latter toward each other, the securing-members being provided with lips, teeth or projections adapted to bite or frictionally engage the working-member of the tool, the working-member of the tool having a notch or recess for receiving one of the aforesaid lips, teeth or projections, substantially as set forth.

2. The combination with the working-member of a tool and the handle, ferrule or holder for receiving said member, of two securing-members C' C' located a suitable distance apart and one or more stops between said members to limit the movement of the latter toward each other, the securing-members being adapted to frictionally engage the working-member of the tool and secure the latter in place, and an abutment for one of the securing-members, substantially as set forth.

In testimony whereof I sign this specification, in the presence of two witnesses, this 27th day of February, 1894.

HORACE S. BUCKLAND.

Witnesses:

C. H. DORER,
WARD HOOVER.