(No Model.)

T. B. HUESTIS.

MEANS FOR SECURING KNIVES TO CUTTER HEADS OF MOLDING MACHINES.

No. 455,211. Patented June 30, 1891.

Fig 1

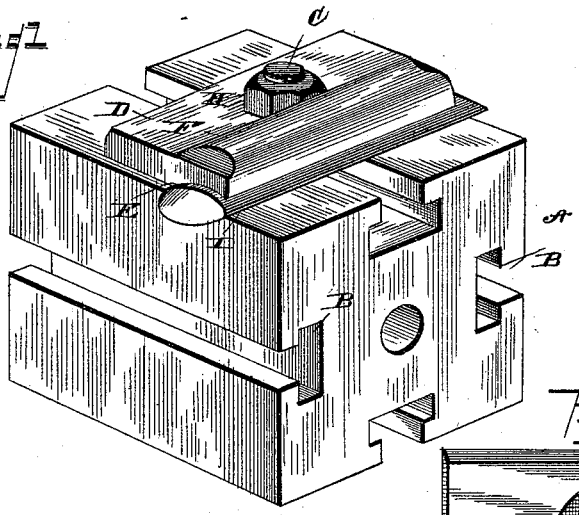


Fig 4

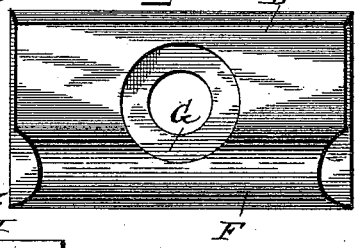


Fig 2

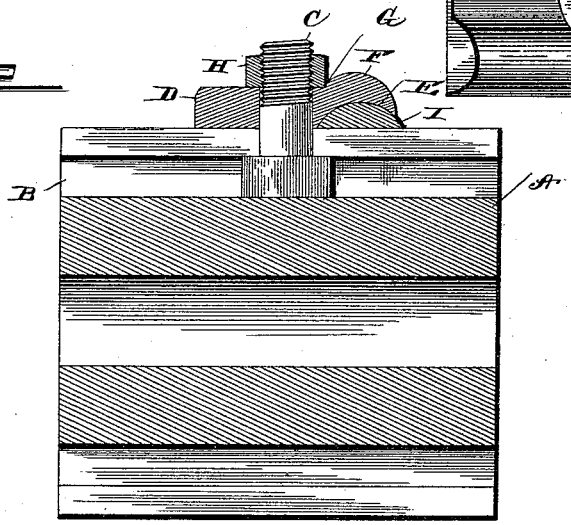
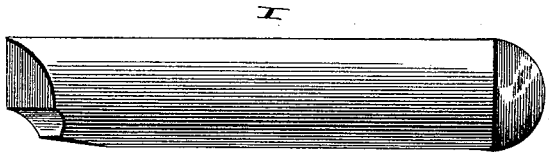


Fig 3



Witnesses

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UNITED STATES PATENT OFFICE.

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MEANS FOR SECURING KNIVES TO CUTTER-HEADS OF MOLDING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 455,211, dated June 30, 1891.

Application filed October 13, 1890. Serial No. 367,896. (No model.)

To all whom it may concern:

Be it known that I, THOMAS B. HUESTIS, a citizen of Prince Edward Island, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Means for Securing Knives to Cutter-Heads of Molding-Machines; and I do 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The object of my invention is to provide an improved means of securing the knife to the cutter-head. To accomplish these objects I employ a narrow knife having a smooth curved convex upper side and a cap having a smooth curved concave groove in its under side corresponding to the convex surface of the knife and provided on its upper side with a rib over the said groove and a recess to receive and protect the clamping-nut. The cap is clamped to the cutter-head with the groove engaging the knife, thereby securing the knife to the cutter-head, as illustrated in the accompanying drawings, and hereinafter first fully described, and then specifically pointed out in the claim.

In the annexed drawings, Figure 1 is a perspective view of a portion of a cutter-head, showing my improved device in position thereon. Fig. 2 is a longitudinal section of the same, and Fig. 3 is a detail view of the knife. Fig. 4 is a detail plan view of the cap.

The cutter-head A is of the usual construction, having the longitudinal T-shaped grooves B in its sides, as clearly shown.

The securing-bolt C has a square head, which is fitted in the base of the groove, while its shank projects through the mouth of the groove. My improved cap D is mounted on the outer end of the securing-bolt and consists of a flat plate having a concave groove E in its under side at one edge, and provided with a convex rib F on its upper side just above said groove, to preserve the strength of the plate at that point. A recess G is formed in the rib and the upper side of the plate to receive the securing-nut H and to prevent the same when turned home from projecting so far as to interfere with the revolution of the cutter-head. Furthermore, this rib and recess protect the nut from lateral blows and consequently prevent the same and the bolt from being twisted and the threads broken so as to become loose.

The knife I consists of a narrow flat bar having a convex upper side which fits snugly in the groove E, the flat or under side of the knife bearing against the cutter-head. Both ends of the knife are tapered and ground to a cutting-edge.

From the foregoing description it will be seen that I have provided a device which can be cheaply and easily manufactured and kept in repair, and which can be applied to any cutter-head now in common use. The cap, it will be noticed, fits over and upon the knife throughout nearly its entire length, thereby re-enforcing and strengthening the knife at the same time that it secures the same to the cutter-head. As my knife is very narrow it can be ground to fit the molding in a short period of time, and as the cap extends over nearly the entire knife, the grinding may be repeated until there is only a very short length of the bar left. As both ends of the knife are cutting ends, it is necessary only to reverse the knife in order to change the cut made. My cap can be secured on the cutter-head at any angle and will effectually hold the knife, as the groove prevents the same from twisting.

By employing a knife having a smooth curved back and a cap having a smooth concave groove I avoid the formation of shoulders, and am thus enabled to very quickly and easily engage the cap over the knife. Furthermore, this construction permits the use of the same cap to secure any desired knife.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

The combination, with the cutter-head, of

the knife bearing thereon and having a smooth curved convex back, the cap resting on the cutter-head provided on its inner side near one edge with a smooth curved concave groove engaging the convex back of the knife and provided on its outer side with a rib F and a recess G, the bolt fitted in the cutter-head and passing through the cap, and the nut mounted on the end of the bolt and adapted to be turned home within the recess G, substantially as specified.

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

THOMAS B. HUESTIS.

Witnesses:
JOHN L. BATES,
ISABELLE CHARLTON.