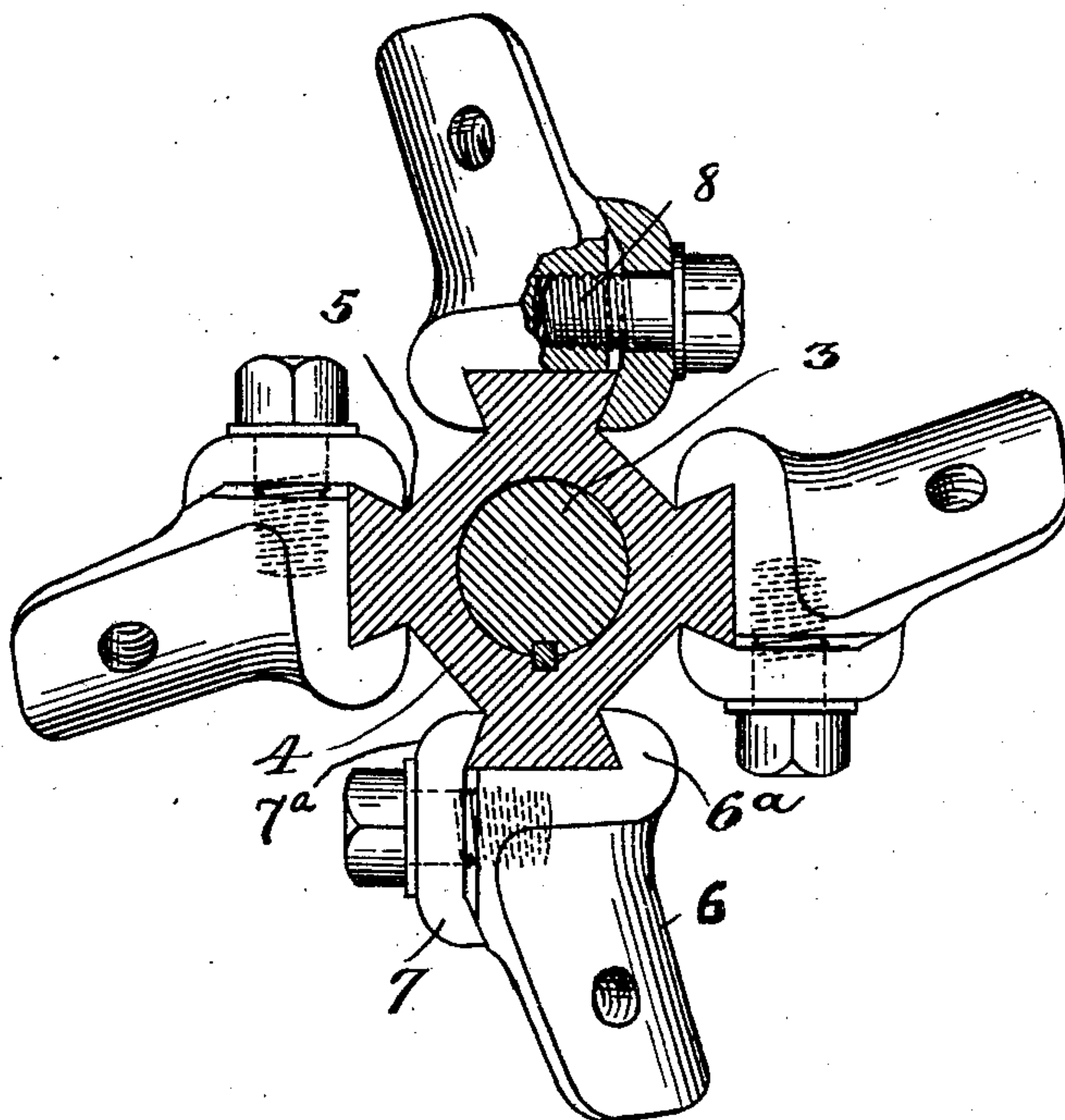


No. 879,501.

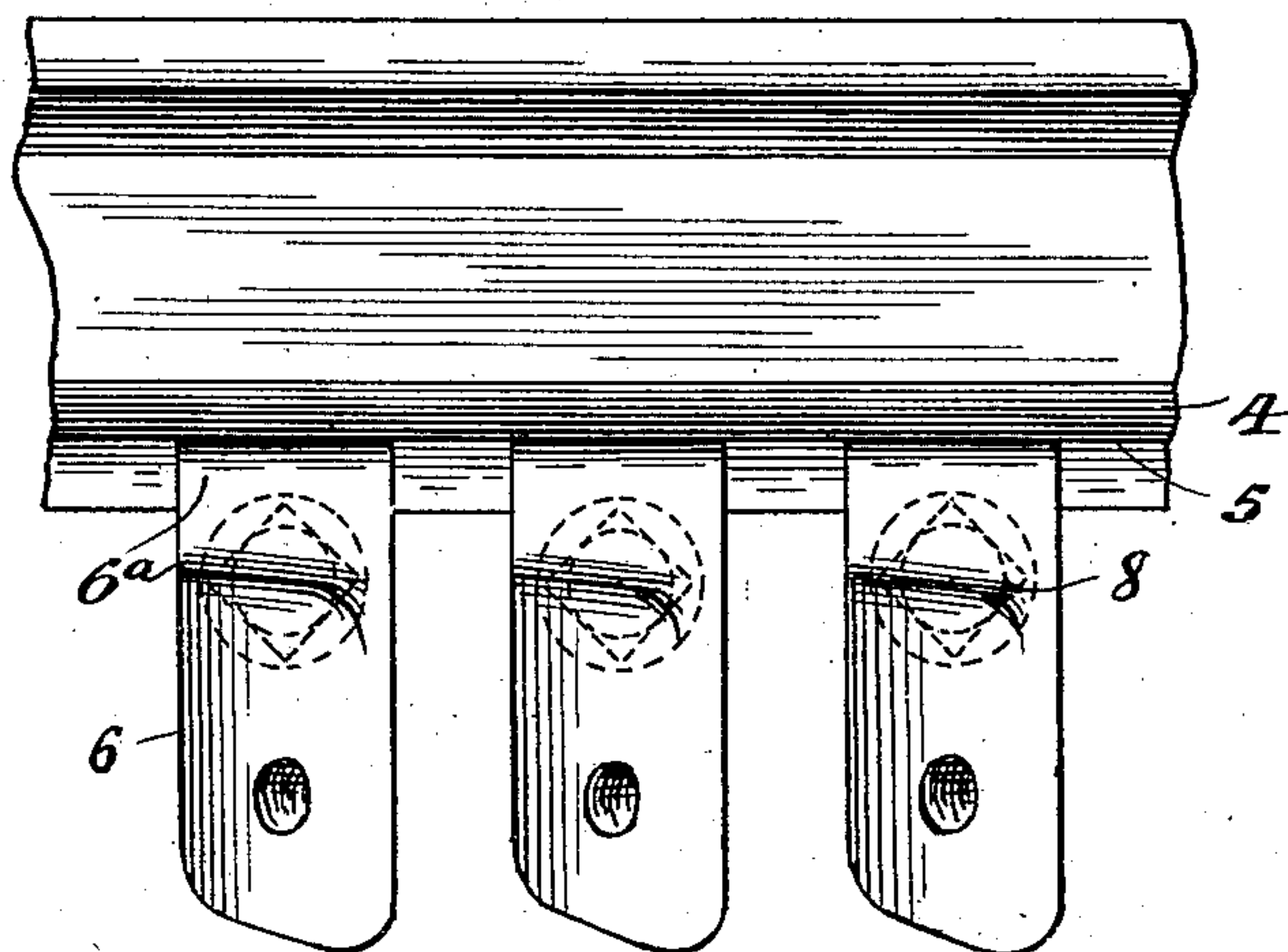
PATENTED FEB. 18, 1908.

A. THORSBY.  
KNIFE HOLDER FOR CUTTER HEADS.  
APPLICATION FILED NOV. 8, 1906.

*Fig. 1.*



*Fig. 2.*



Witnesses,  
J. S. Mann,  
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Atty.



# UNITED STATES PATENT OFFICE.

AXEL THORSBY, OF BELOIT, WISCONSIN, ASSIGNOR TO THE BERLIN MACHINE WORKS, OF  
BELOIT, WISCONSIN, A CORPORATION OF WISCONSIN.

## KNIFE-HOLDER FOR CUTTER-HEADS.

No. 879,501.

Specification of Letters Patent.

Patented Feb. 18, 1908.

Application filed November 8, 1906. Serial No. 342,540.

*To all whom it may concern:*

Be it known that I, AXEL THORSBY, a citizen of the United States, and a resident of Beloit, in the county of Rock and State of Wisconsin, have invented certain new and useful Improvements in Knife-Holders for Cutter-Heads, of which the following is a specification.

The object of the invention is to provide convenient and efficient means for removably securing the knives of cutter heads, and the construction is such that the knives may be applied and removed at any point along the length of the cutter head and without inserting them from the ends of the usual peripheral slot.

In the accompanying drawings, Figure 1 is a sectional view of the cutter head and its shaft with the knife holders applied thereto, one of the latter being partly in section; and Fig. 2 is a fragmentary plan view of a cutter head with three knife holders applied thereto.

In the drawings, 3 represents the cutter head shaft, on which the head, 4, is splined or keyed in the usual manner. The periphery of the cutter head is provided with any desired number of longitudinal ribs, 5 whose sides taper toward the axis of the head.

The knife-holder consists of two members, 6 and 7, which are separably connected by the clamping bolt, 8, passing through an aperture in the member, 7, and engaging threads in the base of the member, 6. The knife-holder may be of any desired configuration and be provided with holes or other means for securing the knife thereto. As shown in the drawings, the body of the knife-holder is flat on its forward face and the body is arranged in a plane oblique to the axis of the head and with one edge in advance of the other, and in operation the knife makes a spiral cut. The member 6 is provided at its inner or basal portion with a clamping toe 6<sup>a</sup>, and the member 7 is preferably concave upon its inner face, adapting it to a snug fit upon the corresponding face of the member 6, while its toe 7<sup>a</sup> has a straight face to engage the beveled wall of the locking rib of the cutter head. The holder is applied by separating the members, 6 and 7, either completely or sufficiently so that the member, 6, may be made to engage one side of the rib, its base resting on the top of the rib and then the clamping member, 7, is applied and the bolt turned up until the

holder is securely clamped to the rib. The holding action is therefore principally that of clamping, the strength of the attachment depending of course on the binding or drawing effect of the bolt, the under-cut surface of the rib making the attachment more secure.

The advantages of the construction are; first, that by making the holder in two parts it may be made very strong and with no projections or members likely to be broken by use; second, the parts are of such construction that the holder may be very quickly and conveniently applied; third, the clamping means are of such construction that the holder is sufficiently secured and the parts are not subjected by any cramping strains which would render them liable to breakage. Fourth, the cutter head being made of steel with its ribs accurately planed, the parts of the knife holder may always be clamped thereto in the same position and is not subjected by the clamping operation to any such strains as would tend to vary the adjustment. This consideration is of importance because it is desired frequently to reseal the knives in precisely the same position as in a former adjustment. With my construction this is assured because no variation in the tightening of the clamps will affect the ultimate position of the holder and consequently of the knife. It will also be noted that the clamping bolt does not make contact with the walls of the rib, and thereby is avoided the formation of depressions in the surfaces of the rib which would defeat correct adjustment upon a reapplication of the holder.

Without confining myself to the exact structural forms, what I claim as new and desire to secure by Letters Patent is:

1. A cutter head having a series of longitudinal ribs upon its surface, in combination with detachable knife-holders each composed of two members fashioned to engage respectively opposite sides of said rib and having bearing faces radial to said head, and means for clamping said members upon said ribs, substantially as described.

2. The combination with the cutter head having a longitudinal rib upon its surface, of a knife-holder therefor comprising two members each having a toe to engage with a lateral wall of said rib, and means for clamping said members together upon said rib, substantially as described.

3. The combination with a cutter head  
having longitudinal ribs with undercut lateral  
walls, of a two-part holder, each of the parts  
having a toe to engage one of said lateral  
5 walls, and a clamping bolt for clamping said  
members together, substantially as described.

4. The combination with a cutter head  
having a plurality of longitudinal ribs, of a  
two-part holder adapted to be clamped  
10 against the opposite sides of the same rib,

and means for effecting such clamping, sub-  
stantially as described.

In testimony whereof, I have hereunto set  
my hand this 3rd day of November, 1906, in  
the presence of two subscribing witnesses.

AXEL THORSBY.

Witnesses:

B. D. STEVENS,  
NELLIE A. OLSEN.