

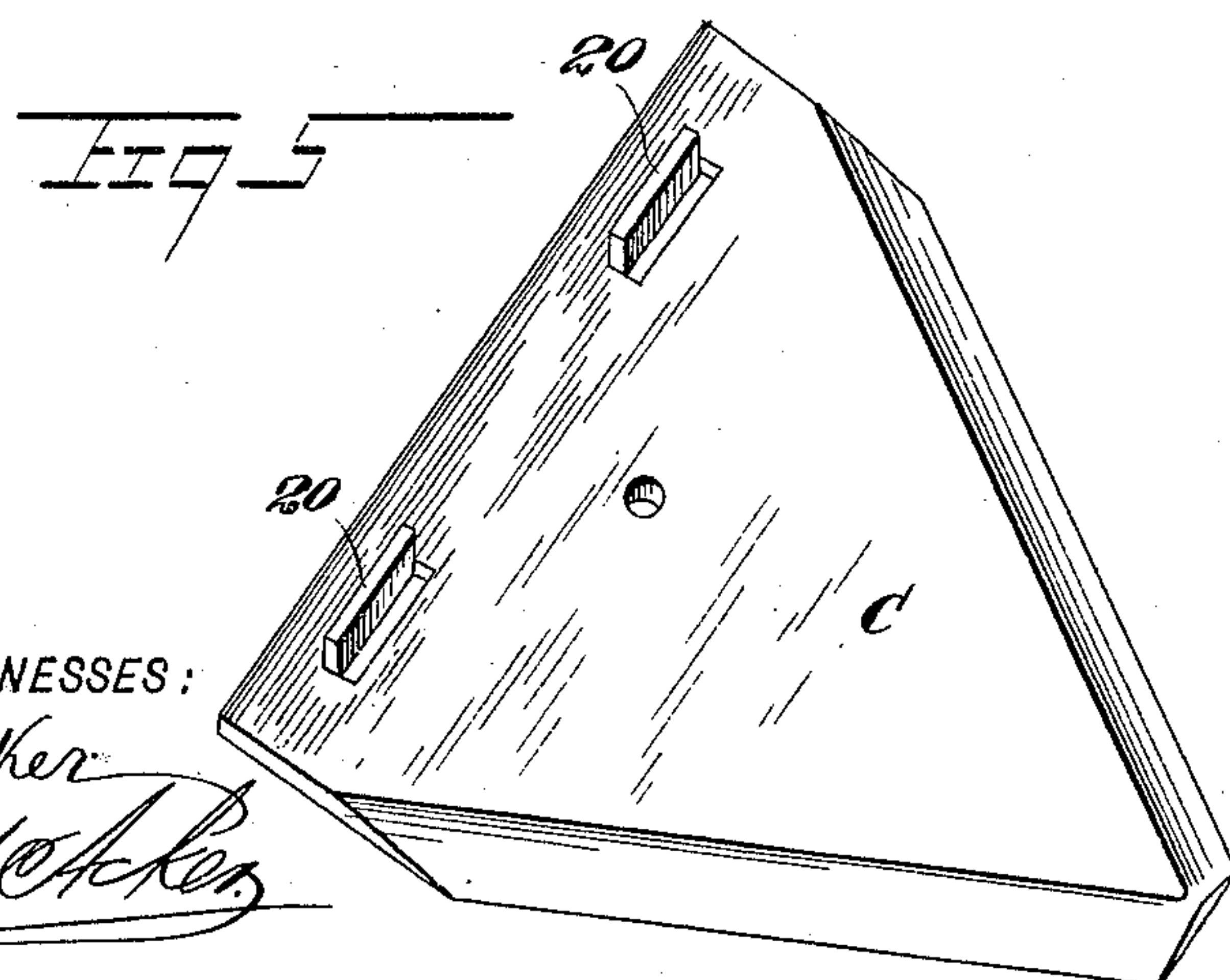
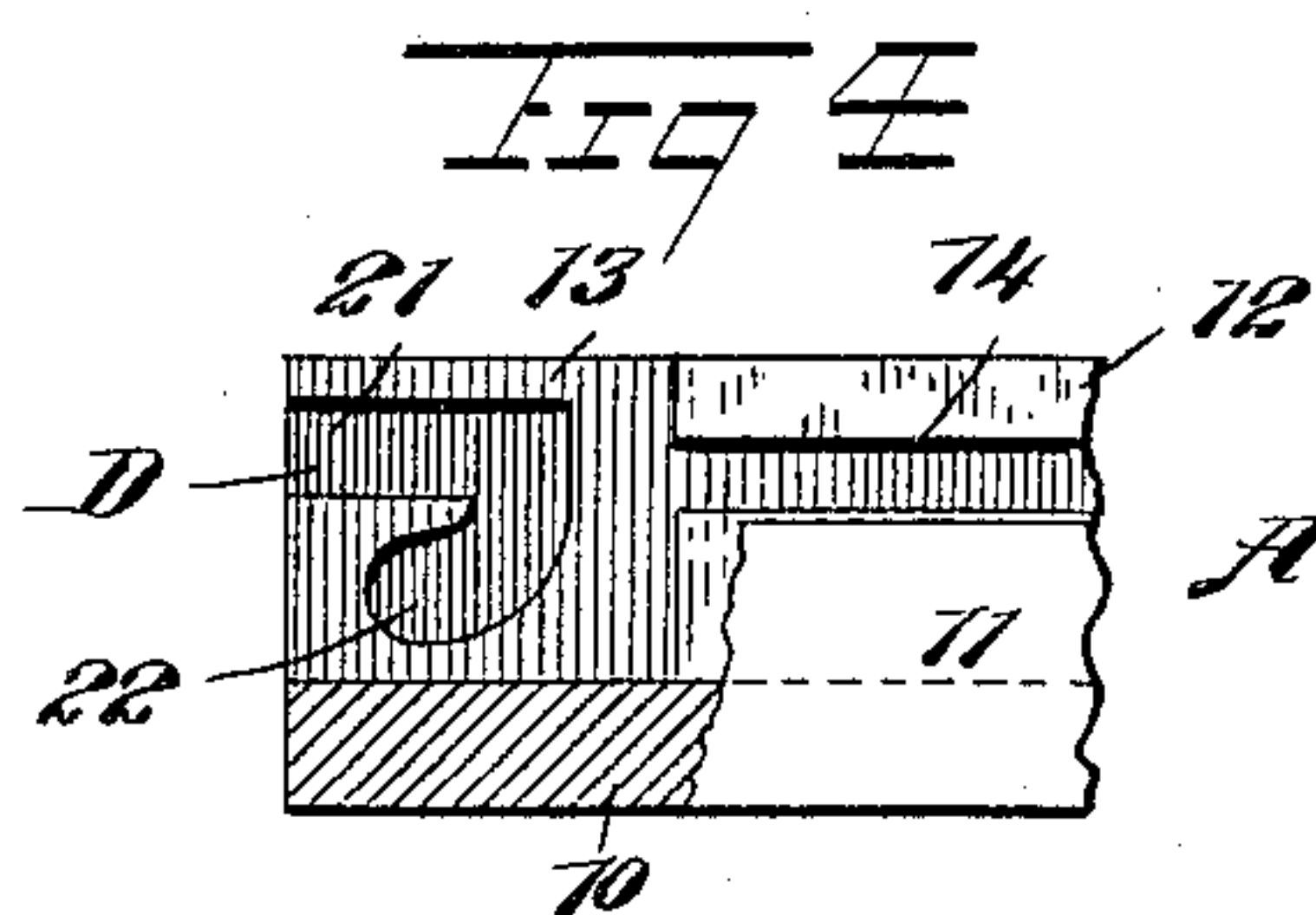
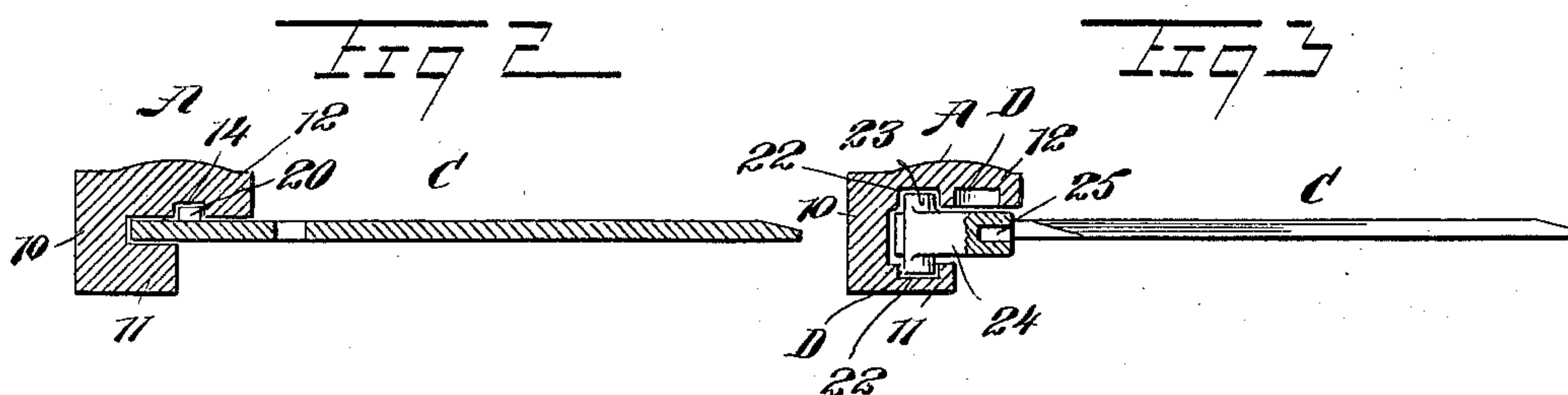
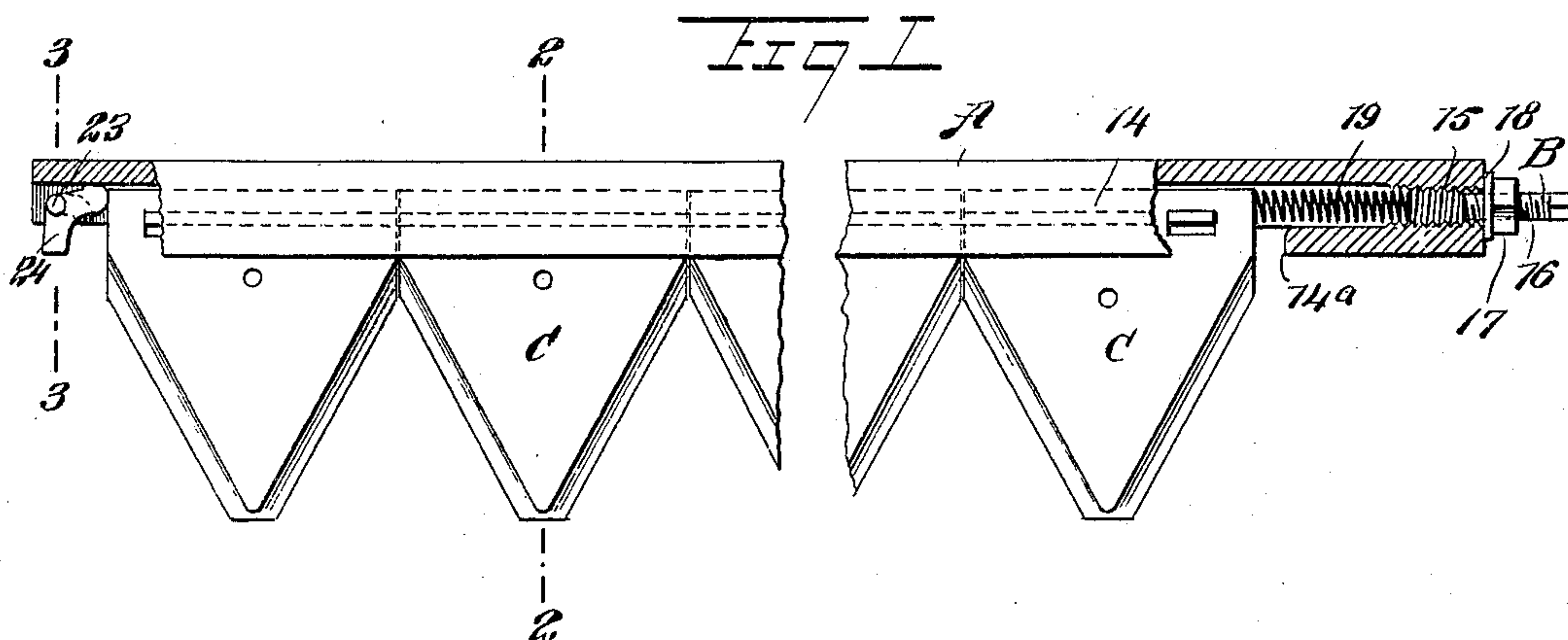
No. 685,557.

Patented Oct. 29, 1901.

A. F. BEMAN.  
CUTTER BAR.

(Application filed Mar. 20, 1901.)

(No Model.)



WITNESSES:

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# UNITED STATES PATENT OFFICE.

ALONZO F. BEMAN, OF RIDGWAY, PENNSYLVANIA, ASSIGNOR OF ONE-FOURTH TO GEORGE H. HYDE, OF RIDGWAY, PENNSYLVANIA.

## CUTTER-BAR.

SPECIFICATION forming part of Letters Patent No. 685,557, dated October 29, 1901.

Application filed March 20, 1901. Serial No. 52,036. (No model.)

*To all whom it may concern:*

Be it known that I, ALONZO F. BEMAN, a citizen of the United States, and a resident of Ridgway, in the county of Elk and State of Pennsylvania, have invented a new and Improved Cutter-Bar, of which the following is a full, clear, and exact description.

The purpose of the invention is to so construct the cutter-bar that the knives may be quickly and conveniently removed and replaced and so that when the knives are in position in the bar they may be readily locked in place, and, further, to so construct the locking medium that the knives may be adjusted and any slack caused by wear on the abutting edges of the knives will be automatically taken up.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a partial plan and horizontal section of the improved cutter-bar. Fig. 2 is a transverse section on the line 2 2 of Fig. 1. Fig. 3 is a similar section on the line 3 3 of Fig. 1. Fig. 4 is a bottom plan view of one end of the cutter-bar, a part of the said end being shown also in horizontal section; and Fig. 5 is an enlarged perspective view of a knife used in connection with the improved bar.

The cutter-bar A consists of a back section 10, a bottom section 11, and an upper overhanging top section 12. At the inner end of the cutter-bar, as shown particularly in Fig. 4, horizontal corresponding recesses 13 are produced in the opposing faces of the upper and lower section of the bar. A longitudinal groove 14 is made in the under face of the overhanging portion or section 12 of the said bar, and this groove 14 extends from the recess 13 in the said upper member of the bar to a point near the opposite end of the bar, and at the same end of the bar a stop 14<sup>a</sup> is formed, as shown in Fig. 1. The stop 14<sup>a</sup> is at the outer end of the bar, and at this end

of the cutter-bar a bolt B is introduced, having a right-hand thread 15, which is screwed into the bar, and an outer left-hand thread 16, which receives a lock-nut 17, and this nut bears against a washer 18, engaging with the outer end of the bar. The bolt B is usually made polygonal at its outer end, so that it may be readily turned by a wrench.

A strong spring 19 has bearing at one of its extremities against the inner end of the bolt B, and the opposite end of the said spring has bearing against the outside edge of the outermost knife C received by the bar. These knives C, as shown in Fig. 5, are provided with lugs 20, parallel and near to their rear edges, the said lugs being usually struck up from the material of which the knives are made, and when the knives are introduced into the bar the bottom of the knives rests upon the upper face of the member 11 of the bar, while the lugs 20 of the knives enter the groove 14. When the knives are in position, their opposing side edges within the cutter-bar are in engagement.

At each recessed portion 13 of the cutter-bar a return-groove D is produced. Each return-groove consists of a longitudinal entrance-section 21, which commences at the inner end of the bar, and a pocket member 22 is at one side of the entrance member 21, as is particularly shown in Fig. 4. The trunnions 23 of a cam 24, preferably of angular shape, are received in the return-grooves D, and after the trunnions of the cam have passed through the entrance members of the return-grooves D they are carried down into the pocket members 22 thereof. The inner member of the cam is provided with a head and the outer member is provided with an opening 25, into which a bar or hook may be passed for the purpose of turning the cam. When the outer member of the cam is brought practically at a right angle to the cutter-bar, as shown in Fig. 1, the head of the cam engages with the edge of the innermost knife, as is also shown in Fig. 1, and forces all the knives together and the outermost knife firmly against the spring 19; but should any wear occur where the knives abut the slack will be taken up by the expansion of



the spring 19, and the tension of this spring 19 may be regulated by the adjustment of the screw-bolt B.

It will be observed that by removing the  
5 cam 24 from the bar, which is accomplished  
by carrying the trunnions of the cam from  
the pocket members of the return-grooves to  
the entrance members of the said grooves, the  
knives may be removed from the bar one af-  
10 ter the other and sharpened or otherwise  
treated or other knives substituted for those  
which are irreparably injured.

Having thus described my invention, I  
claim as new and desire to secure by Letters  
15 Patent—

1. A cutter-bar, a series of knives located  
in the said cutter-bar, a tension device at one  
end of the bar, engaging with the knife at  
said end, and a locking-cam at the opposite  
20 end of the bar, engaging with the knife at  
that end of the bar, as set forth.

2. A cutter-bar, a series of independent  
knives slidably mounted in the said cutter-  
bar, extensions from the knives, which enter

a groove in the cutter-bar, a tension device 25  
engaging with one end knife, and a locking-  
cam engaging with the opposite end knife,  
both the cam and tension device being car-  
ried by the cutter-bar, as set forth.

3. The combination, with a cutter-bar and 30  
a series of independent knives slidably mount-  
ed in said bar, the said knives having pro-  
jections which enter a groove in the cutter-  
bar, of an adjusting-bolt located at one end  
of said bar, a spring engaging with the said 35  
bolt and with one of the end knives, and a  
locking-cam removably pivoted at the oppo-  
site end of the said cutter-bar, being adapted  
to engage with the opposite end knife, as set  
forth. 40

In testimony whereof I have signed my  
name to this specification in the presence of  
two subscribing witnesses.

ALONZO F. BEMAN.

Witnesses:

W. W. BARBOUR,  
R. B. THOMPSON.