(No Model.)

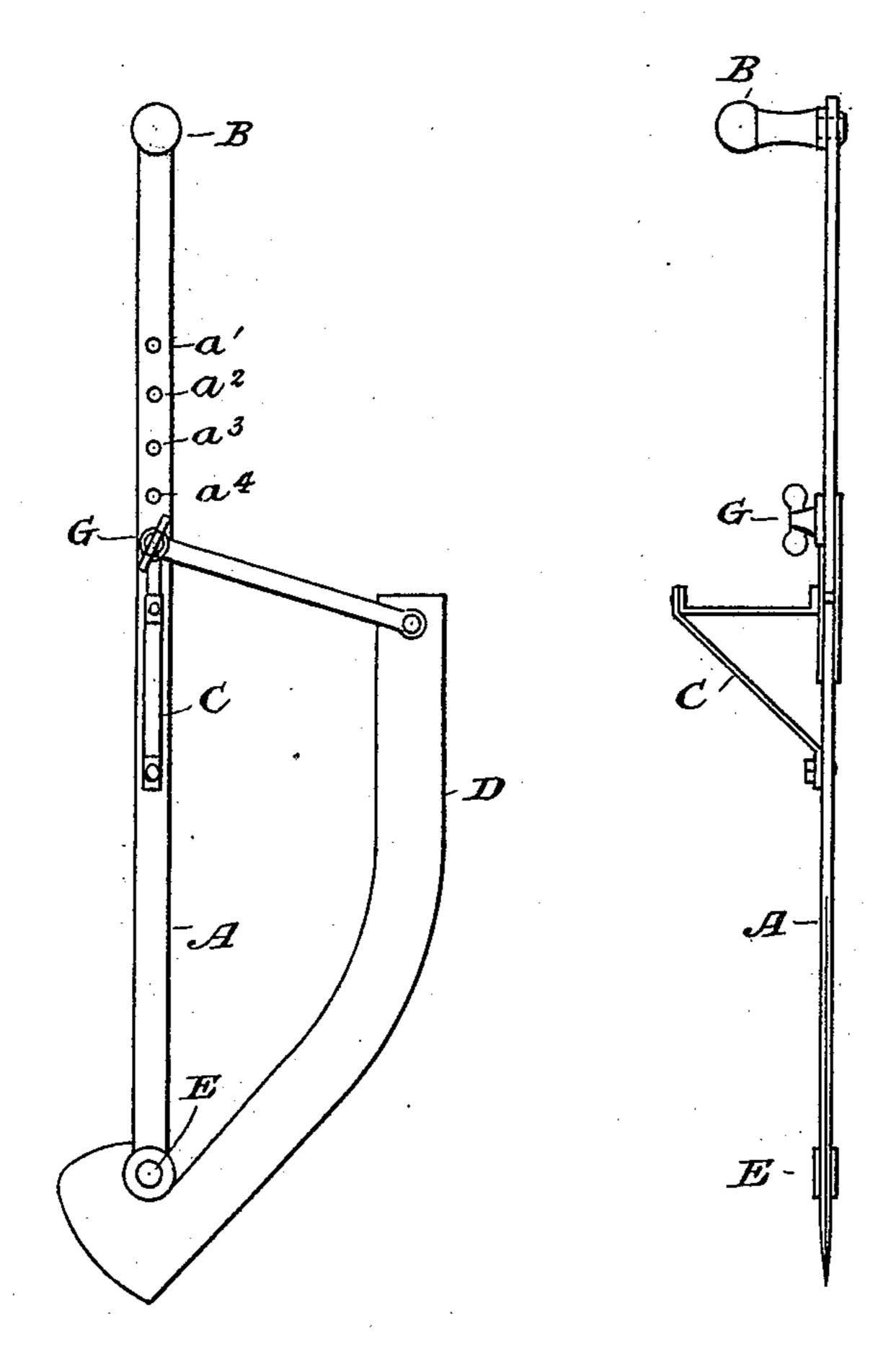
E. BIRÓ. HAY KNIFE.

No. 463,806.

Patented Nov. 24, 1891.

Fig. 1.

Fig. 2.



W/TNESSES:

&B. Bolton a. B. Summer.

## United States Patent Office.

EUGEN BIRO, OF ESSEGG, AUSTRIA-HUNGARY.

## HAY-KNIFE.

SPECIFICATION forming part of Letters Patent No. 463,806, dated November 24, 1891.

Application filed April 2, 1891. Serial No. 387,457. (No model.)

To all whom it may concern:

Be it known that I, Eugen Biro, a subject of the King of Hungary, residing at Essegg, in the Province of Slavonia, Austria-Hungary, have invented certain new and useful Improvements in Straw and Hay Cutters, of which I declare the following to be a full, clear, and exact description.

The object of the present invention is a so farming implement which is used for cutting

hay and straw.

The herein-described hay or straw knife is much more practical than the straw-knives with teeth now in use. The advantage con-15 sists in the ease with which it is handled, for while the use of the others requires considerable strength and soon exhausts the workman, the knife forming the subject of this invention can be used even by a child with fa-20 cility, as the knife on this tool can be so set that more or less can be cut off with one pressure, whereby more or less force must be naturally dispensed. The knife is set according to the tightness of the stack or bale, as the 25 cutting from a tightly-laid stack requires more strength than from one laid loosely. On the other hand, this straw-knife can stand the opposition of those now in use in regard to the flat cut.

In the accompanying drawings, forming a part of this specification, Figure 1 represents a front elevation of a hay or straw cutter embodying my invention. Fig. 2 represents an

edge view of the same.

My improved device is constructed as follows: The handle B, arranged horizontally on the upper part of the flat steel frame-rod A, serves for the handling of this tool, while C is a foot-rest, which, being fastened at about the middle of this rod, allows the workman press-

ing on this rest to work the tool with the weight of his own body, and during the pressure the cutting of the straw is done by means of the knee-like-bent knife D, whose lower end is connected movably at E, while its up- 45 per end is connected with rod F. This rod F runs at each end into a two-armed fork, so that the upper end of the knife D is set movably between the one fork, while the second end of the rod F, which is also fork-like, 50 is adjusted at different heights on rod A by means of the holes a'  $a^2$   $a^3$   $a^4$ , and is fastened when setting the knife by means of a wingscrew G in the corresponding hole. The handle B and the foot-rest C can be taken off, as 55 they are fastened by means of screws to the frame-rod, and put on the other side, as it may suit the workman.

I claim—
1. The herein - described straw and hay 60 knife, consisting of a frame-rod provided with handle B and foot-rest C, and of the movable knee-formed knife D, operated by means of the movable connecting-rod F, substantially as specified.

2. In a straw or hay cutter, the combination, with the rod A, provided with handle B, footrest C, and perforations  $a' a^2 a^3 a^4$ , of the cutter of knife D, pivoted at one end to rod A and at the other end to forked rod F, the said 70 rod F being removably connected by screw G to the rod A, substantially as specified.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

EUGEN BIRO.

Witnesses:

K. S. BÜSING, M. A. WALSH.