

No. 694,834.

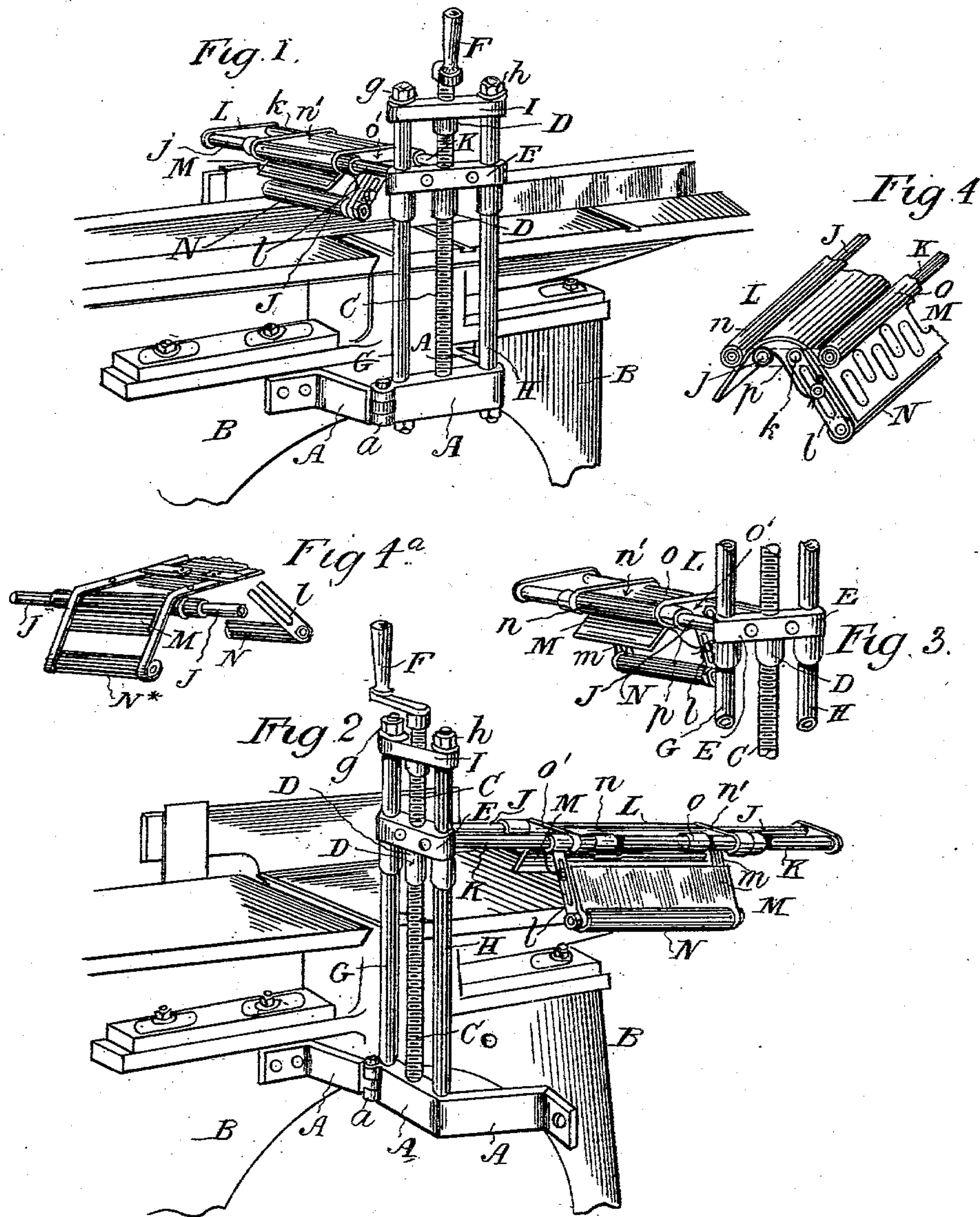
Patented Mar. 4, 1902.

A. COOK.

GUARD FOR WOODWORKING MACHINES.

(Application filed Mar. 12, 1901.)

(No Model.)



Inventor.

Witnesses.
Fred Engle
Geo. H. Byrne

A. Cook
By Wilkinson & Fisher
Attorneys

UNITED STATES PATENT OFFICE.

ANDREW COOK, OF GLASGOW, SCOTLAND.

GUARD FOR WOODWORKING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 694,834, dated March 4, 1902.

Application filed March 12, 1901. Serial No. 50,824. (No model.)

To all whom it may concern:

Be it known that I, ANDREW COOK, residing in Elliot street, Glasgow, in the county of Lanark, Scotland, have invented certain new and useful Improvements in Guards for Woodworking-Machines; 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 appertains to make and use the same.

The invention relates to improvements in guards for wood planing, surfacing, dressing, and other machines for cutting moldings of various kinds and circular saws, and has for its object to obviate the accidents at present so common to the hands of workmen or attendants engaged in working such machines.

In the drawings, Figure 1 is a perspective view of a planing-machine to which the guard embodying my invention is applied and shown in operation. Fig. 2 is a similar view illustrating the guard swung out of engagement. Fig. 3 is a part perspective view of the guard detached from the machine in its normal position when not in operation. Fig. 4 is a perspective view, taken at a different plane, illustrating the guard provided with a modified form of covering-plate. Fig. 4^A is a similar view showing the guard with a double roller.

In carrying out my invention, reference being made to Figs. 1 to 4^A, I provide a suitable guide-bracket A, which is formed with a hinged joint *a* in order to swing the guard out of engaging position, as shown in Fig. 2, and which bracket is bolted laterally to the side of the machine B. The bracket A is mounted with a long vertical screw C, upon which works the nut D, with its cross-head E, which are capable of being raised and lowered by the bent handle F and for which may conveniently be substituted a hand-wheel (not shown) in order to reduce top hamper when necessary. The said cross-head E, which is rigid with or forms an integral part of the nut D, is guided and strengthened by two vertical guide-rods G and H, which are fitted into the bracket A at their lower ends and connected at their upper ends by the stay or cross-head I and nuts *g* and *h*. To the cross-head E are connected two horizontal rods J and K, which slidably carry the guard L proper. This guard L consists in part of a

plate M of channel formation, which is connected to or forms part of the two bushes or tubular pieces *n* and *o*, which are connected together by two cross-bars *n'* and *o'* and allow of the guard being moved adjustably along the rods J and K immediately over the rotary cutters which it is intended to guard. The bush *n* also constitutes a roller for enabling the timber under treatment to be returned to the attendant. The cross-bars *n'* and *o'* are mounted with two longitudinal rods *j* and *k*, Fig. 4. The rod *k* carries two depending slotted levers *l* and *m*, upon the lower ends of which is mounted the roller N, which forms another part of the guard. The rod *j* carries a spring *p*. The spring *p* is provided at its free end with a roller-bearing which works in the slot with which the lever *l* is provided and acts upon the levers *l* and *m* and the antifriction-roller N in such manner as to throw them into an angular position toward the attendant. By virtue of this arrangement the roller N is capable of radial, rocking, and rising movement and is given a continuous tension while the machine is being fed, as illustrated in Fig. 1, and which roller when released returns to its normal position by means of the spring aforesaid and shown more particularly in Figs. 2, 3, and 4.

The additional roller N* (shown in Fig. 4) is employed to exert a uniform pressure upon the wood under treatment and maintain it in a true horizontal position in its travel over the cutters.

The plate M already mentioned, which for brevity I will call a "cover-plate," constitutes a guard or shield and, as shown in Fig. 4, is provided with a number of parallel slots or holes which enable the attendant to see the rotary cutters. In Figs. 1, 2, and 3 this cover M forms part of a separate attachment, which is fitted to the slotted levers *l* and *m* immediately above the antifriction-roller N.

I claim—

1. In a device of the character described, the combination with a planing-machine, and the horizontally-disposed rotary cutters carried thereby; of a hinged bracket secured to the side of said machine, a frame carrying a screw secured to the hinged portion of said bracket, a framework slidably mounted upon said frame, adapted to be actuated by said

screw, and a guard carried by said framework, substantially as described.

2. In a device of the character described, the combination with a planing-machine, and
5 horizontally-disposed rotary cutters carried thereby; of a hinged bracket secured to said machine, a frame carrying a screw mounted upon said hinged bracket, a framework
10 slidingly mounted upon said frame, and adapted to be actuated by said screw, a protective plate slidingly mounted upon said

framework, a swinging frame also mounted upon said framework, a roller mounted upon the end of said swinging frame, and a spring acting upon said swinging frame, substantially as described. 15

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

ANDREW COOK.

Witnesses:

I. H. PEARSON,
JAMES G. GROVES.