

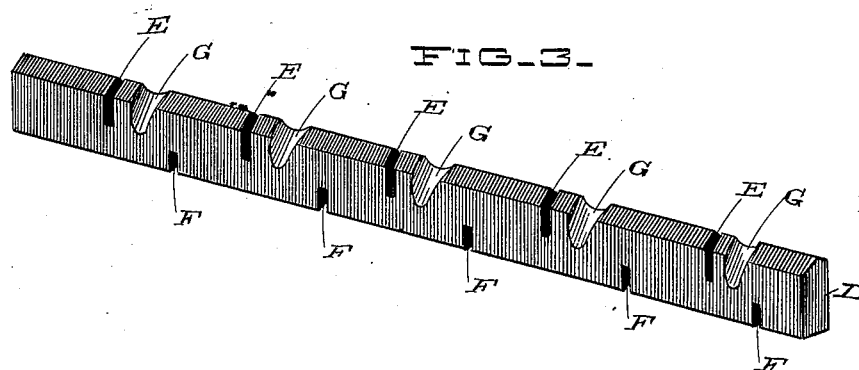
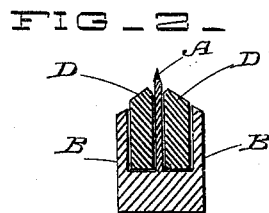
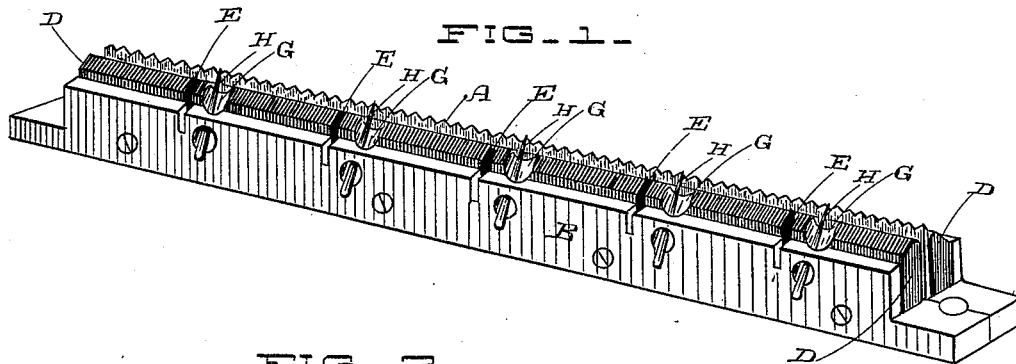
(No Model.)

W. H. EAGER.

KNIFE BOX RUBBER FOR PRINTING PRESSES.

No. 422,576.

Patented Mar. 4, 1890.



Witnesses,
Geo. H. Strong
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UNITED STATES PATENT OFFICE.

WALTER H. EAGER, OF SAN FRANCISCO, CALIFORNIA.

KNIFE-BOX RUBBER FOR PRINTING-PRESSES.

SPECIFICATION forming part of Letters Patent No. 422,576, dated March 4, 1890.

Application filed December 11, 1889. Serial No. 333,347. (No model.)

To all whom it may concern:

Be it known that I, WALTER H. EAGER, a citizen of the United States, residing in the city and county of San Francisco, State of California, have invented an Improvement in Knife-Box Rubbers for Printing-Presses; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to certain improvements in the apparatus connected with printing or printing and folding machines, and which is designed to sever the paper at the proper point.

It consists of improved elastic supports, which are placed in the knife-box upon each side of the knife.

Referring to the accompanying drawings for a more complete explanation of my invention, Figure 1 is a view showing the knife-box, knife, and elastic band. Fig. 2 is a transverse section. Fig. 3 is a view showing the elastic pad or rubber removed.

In presses which print from continuous rolls of paper a knife A is fixed in what is termed a "knife-box." But the proper point, so that the paper will be pressed upon the edge of the knife by a roll, between which and the knife the paper is passed, and this action severs the paper.

In order to support the paper and cause it to cut without tearing or sticking upon the knives, it is customary to place strips of wood within the channels formed between the knife and the sides of the box, these strips resting upon spiral or other springs which retain their surfaces normally on a level with the edge of the knife, but allow them to be depressed when the paper is forced upon the edge of the knife by the action of the roll. It is very difficult to keep these strips and the springs in order. They are very apt to break and necessitate the frequent stopping of the press for repairs.

My invention consists of a rubber strip D, which is made continuous and of the length of the knife and knife-box, the upper edge standing at the proper level with relation to the edge of the knife. This strip has trans-

verse slots or channels E cut in the upper edge, and similar channels F cut in the lower edge intermediate between the slots in the upper edge.

Grooves or channels G are formed in the outer side of each of the strips D to enable the points H to extend up through the sides of the box and the elastic strips, these points standing in proper relation with the edge of the knife for the purpose of holding the edge of the paper. This being a well-known construction and its purposes fully explained in connection with patented printing-presses, no explanation of the uses of these points is necessary in this case.

By reason of the transverse cuts or channels made in the edges of the rubber, and also the inclined grooves or channels through which the points project, I am enabled to make the rubber much more elastic by allowing spaces into which it may be compressed when the pressure is brought upon the edge, and by these means I am enabled to substitute the continuous rubber strip for the wooden strips which have been heretofore used for this purpose. All difficulty from the breaking of springs or battering and damage of the wood is avoided, and by reason of the cuts and grooves a sufficient elasticity is produced in the rubber strip, while by reason of its being made in one continuous piece it is easily retained in place in the box and prevented from shifting.

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

The combination, with the knife and knife-box of a printing-press, of a continuous rubber plate or strip having the transverse grooves and notches formed in its edges, substantially as herein described.

In witness whereof I have hereunto set my hand.

WALTER H. EAGER.

Witnesses:

S. H. NOURSE,
H. C. LEE.