

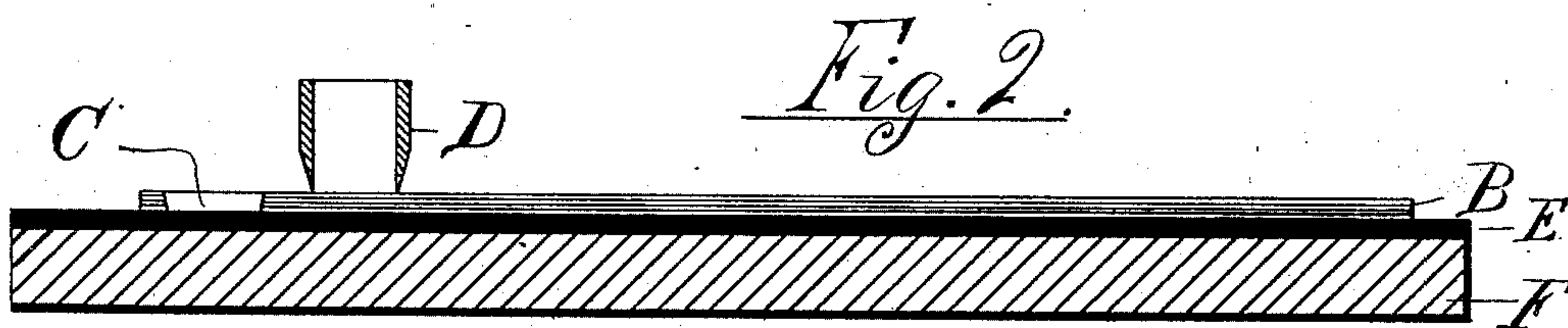
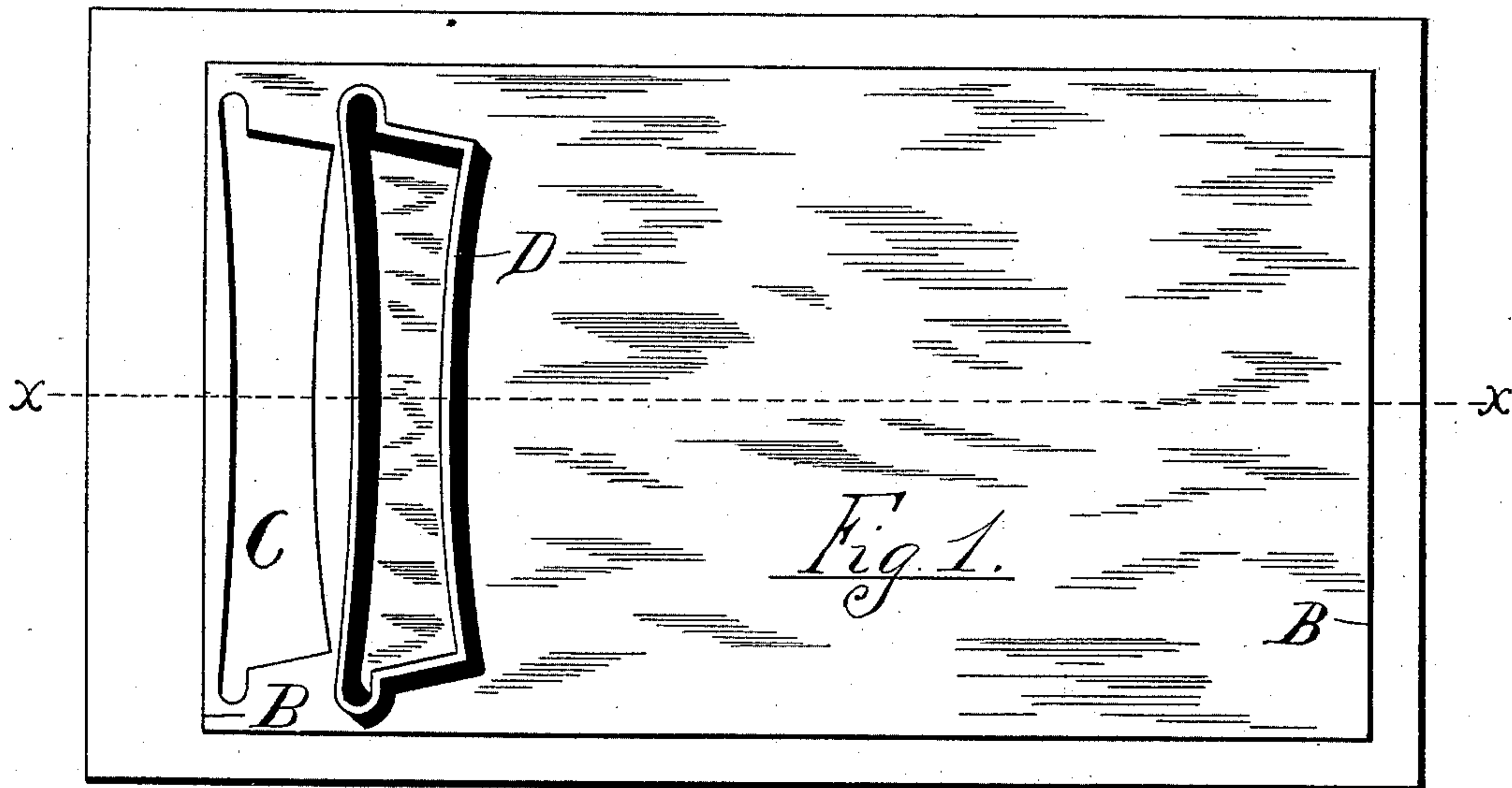
(No Model.)

P. J. SIMOULIN.

BLOCKS USED AS BEDS IN PUNCHING AND CUTTING MACHINES AND
IN CUTTING OUT GENERALLY.

No. 412,802.

Patented Oct. 15, 1889.



Attest:
L. Lee,
F. C. Fischer.

Inventor:
Pierre J. Simoulin,
per Crane & Miller, Attys

UNITED STATES PATENT OFFICE.

PIERRE JOSEPH SIMOULIN, OF PARIS, FRANCE, ASSIGNOR, BY MESNE ASSIGNMENTS, TO CHARLES EDWARD SHAFER, OF SAME PLACE.

BLOCKS USED AS BEDS IN PUNCHING AND CUTTING MACHINES AND IN CUTTING OUT GENERALLY.

SPECIFICATION forming part of Letters Patent No. 412,802, dated October 15, 1889.

Application filed February 2, 1888. Serial No. 262,804. (No model.) Patented in France May 3, 1887, No. 183,309; in England July 14, 1887, No. 9,910, and in Belgium November 14, 1887, No. 79,528.

To all whom it may concern:

Be it known that I, PIERRE JOSEPH SIMOULIN, a citizen of the Republic of France, have invented certain new and useful Improvements in Blocks Used as Beds in Punching and Cutting Machines and Cutting Out Generally; and I do hereby declare that the following is a full, clear, and exact description of the same.

10 The invention has been previously secured to me in France by Letters Patent No. 183,309, dated May 3, 1887, and by a certificate of addition annexed thereto dated November 10, 1887; in England by Letters Patent No. 9,910, dated July 14, 1887, and in Belgium by Letters Patent No. 79,528, dated November 14, 1887.

15 My invention relates to an improved block used as a bed or underlay for punching or cutting tools generally.

20 My invention consists of a block or sheet made of material composed in whole or in part of dissolved nitro-cellulose. This substance is known in the trade under various names, such as "celluloid," "parkesine," "zylonite," and such like compounds having pyroxyline as a base.

25 The hereinbefore-described blocks or underlays are manufactured in the desired shape and thickness by molding, shaping, or otherwise. When the blocks, after being used for a given length of time, have been subjected to wear and tear which renders the replacing thereof necessary, they can be molded again into blocks or sheets without losing any of their properties; or the damaged surfaces may be easily repaired by filling the cuts and holes with a liquid made by dissolving pieces of the very same blocks or underlays in alcohol, ether, acetone, or any other appropriate solvent, and adding thereto a small proportion of crystallized camphor, the said liquid mixture being applied by means of a paint-brush, and then pressing the coated block between two iron plates, preferably steam-plates, to impart complete smoothness of surface.

30 The application of my invention to cutting-beds for paper collars is shown in the annexed drawings, in which—

35 Figure 1 is a plan of the bed A provided

with my improvements, and having thereon a pile of material B, adapted for making paper collars, and a cutter for cutting out the same. Fig. 2 is a section of the same on line $x x$ in Fig. 1. 55

In one corner of the pile of material B is shown an aperture C, from which a pile of collars has been cut, and adjacent to such aperture is shown the cutter D, resting upon the pile and adapted, when pressed thereon, to cut through the pile to the surface of the bed. 60

E is the block or sheet upon the wooden plank F to form a bed for the knife or cutter D. 65

The knife is shown resting upon the material B, and it is obvious that if the bed, with the material and cutter, be inserted in a suitable press the cutter could be forced through the material into contact with the bed. The pressure required to sever the material would in many instances force the cutting-edge into the bed, and the surface of the latter would thus become marked and roughened by the knife and could be renewed in the manner described above. 70 75

The drawings are furnished only to show a single application of my invention; but it may be used in any other connection where a cutting-bed is required to sustain the material during the operation of cutting by a knife or cutter forced through the material into contact with the bed. 80

The patent issued upon my present application is limited in its duration by a prior French patent filed by me May 3, 1887. 85

I claim—

The combination, with a knife or cutter, of a block or sheet the base of which is composed of soluble nitro-cellulose, the knife being operated by pressing it through the material laid upon the block or bed and partly into the surface of the block or sheet, substantially as herein set forth. 90 95

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

PIERRE JOSEPH SIMOULIN.

Witnesses:

R. H. BRANDON,
A. LE CANN.