(No Model.)

W. J. GRIFFIN.

PAPER CUTTER BLOCK.

No. 303,725. Patented Aug. 19, 1884.

Fig 1 Fig 2

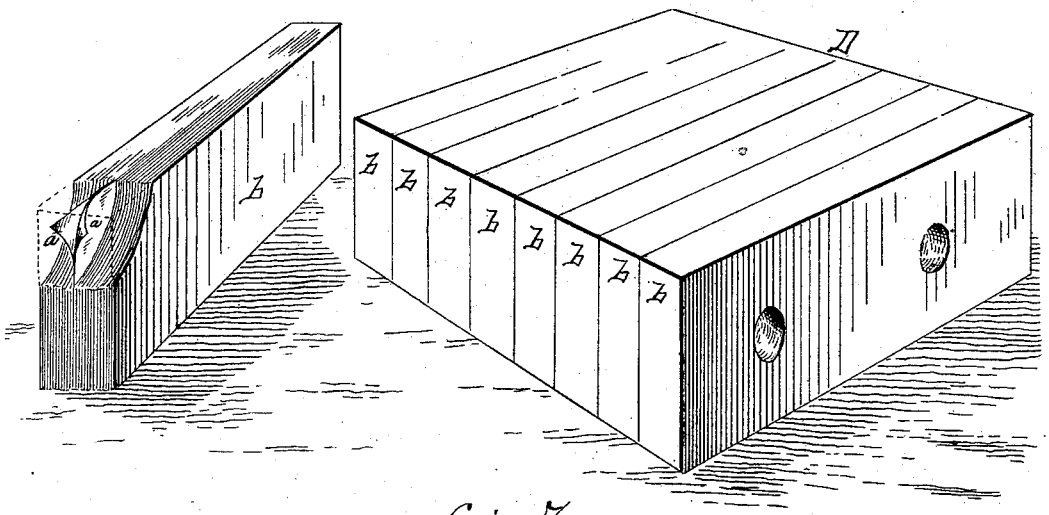
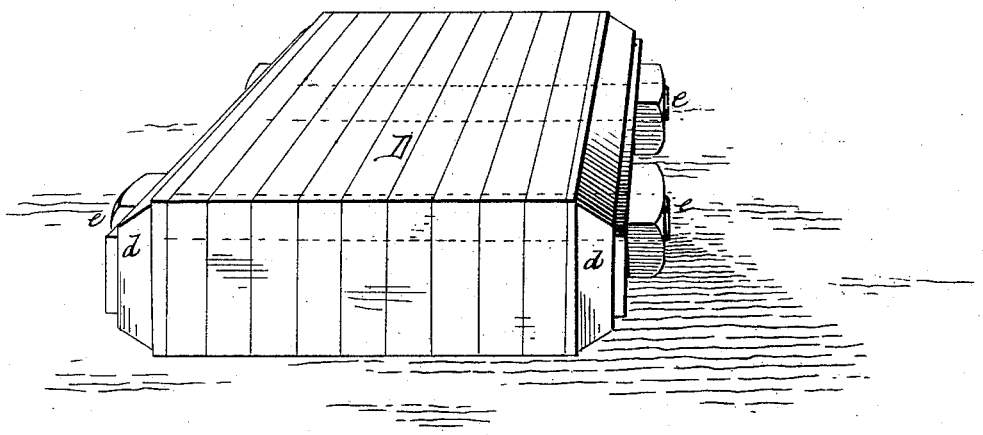


Fig 3



WITNESSES:

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PAPER-CUTTER BLOCK.

SPECIFICATION forming part of Letters Patent No. 303,725, dated August 19, 1884.

Application filed October 19, 1883. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM J. GRIFFIN, a citizen of the United States, residing at Holyoke, in the county of Hampden and State of Massachusetts, have invented new and useful Improvements in Paper-Cutter Blocks, of which the following is a specification.

This invention relates to improvements in paper-cutting blocks for paper-cutting and other similar machines, the object being to provide an improved base or block against which the knife of such machine strikes after passing through a pile of paper or other material, as a substitute for the usual wooden block, whereby a block having greater resistance than wood is provided, and one of greater durability, and which is free from liability to warp.

In the drawings forming part of this specification, Figure 3 illustrates a cutting-block constructed according to my invention. Fig. 1 is a view partly in section of one of the parts forming the block, and Fig. 2 is a series of parts ready to be secured together and finished.

Machines for cutting thick piles of paper—such as those used in paper-mills and bookbinderies for trimming, and in envelope-manufactories for cutting at one pass many envelope-blanks—are provided with knives and cutters which necessarily are operated by powerful machinery, in order that the knives may be forced through the paper with an unvarying movement, and cutting-blocks must be provided which are capable of withstanding the full force of the knife or cutter when its edge has passed through the pile. Blocks of hard wood have heretofore been used; but that material is not hard enough to prevent the knives from entering considerably below the surface of the block, and this tends to make the latter warp and render its surface uneven, thereby making it necessary to frequently plane them off. I have discovered that by making a cutting-block of paper, as hereinafter set forth, the above-named inconveniences are obviated.

In the drawings, *a a*, Fig. 1, indicate two of the strips of paper composing a block, *b*. The strips or narrow sheets of paper composing the latter are preferably pasted or cemented together in the form shown, and are afterward thoroughly dried, and then said block is perforated, as shown in Fig. 2.

The cutting-block D consists of several blocks, *b*, arranged side by side, as in Fig. 2, and compressed and bolted together to form a solid whole, as in Fig. 3. A clamp-plate, *d*, is placed at each end of the series of blocks *b*, having bolt-holes through it corresponding with those in the blocks. Bolts *e* are then passed through the said series, and their nuts placed upon their ends. The series of blocks *b* is then placed in a hydraulic or other suitable press, and power is applied thereto against one of plates *d*, while the other rests on a solid base, thus compressing the blocks *b* in the direction of the length of bolts *e* until the whole mass is brought to a condition of great solidity and hardness, when the nuts are screwed against the plate *d*, holding the blocks where the press left them. The block thus formed is then planed off to a true thickness and width, and it is ready to be used.

It will be seen that the cutting-block constructed as above described has its faces composed of a great number of the edges of sheets of paper of which it is made united by great compression, and they constitute a cutting-surface of extraordinary resistance; and, furthermore, repeated contact of the knife with its surface does not result in warping or springing the block.

The block D may be planed off, when required, after long usage; but as the knife cannot be forced far into it, this is not often necessary.

As aforesaid, I prefer to unite the sheets of paper forming the blocks *b* by cementing or pasting one to the other, and also to paste said blocks together before pressing them, believing that a more solid block is finally the result; but nearly the same solidity is obtained by building up perforated sheets of paper on the bolts *e*, and then compressing and planing, as before described.

What I claim as my invention is—

1. The cutter-block hereinbefore described, consisting of series of sheets of paper compacted together into blocks, and a series of these blocks bolted together to form a cutter-block.

2. The combination, in a cutter-block, of the blocks *b*, of compacted sheets of paper, the clamp-plates *d*, and retaining-bolts passing through perforations in the blocks and clamp-plates, substantially as described.

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Witnesses:
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