

H. BOSCH.
MACHINE FOR CUTTING WALL PAPER AND THE LIKE.
APPLICATION FILED AUG. 22, 1912.

1,057,703.

Patented Apr. 1, 1913.
5 SHEETS—SHEET 1.

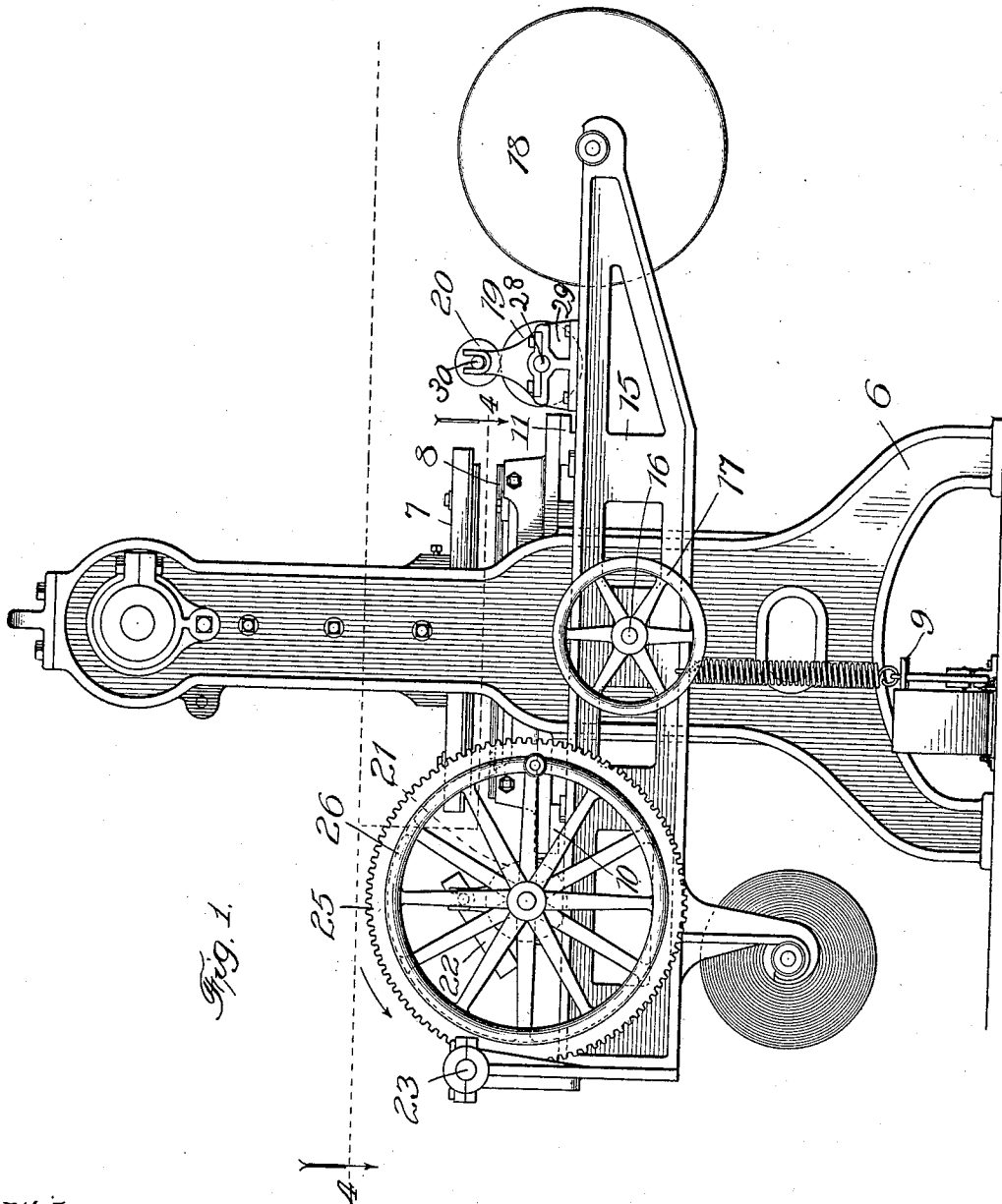


Fig. 1.

Witnesses:
E. C. Taylor,
Chas. H. Buell.

Inventor:
Henry Bosch,
Dudmanford, Le., Christon & Wile,
Attys.

H. BOSCH.
MACHINE FOR CUTTING WALL PAPER AND THE LIKE.
APPLICATION FILED AUG. 22, 1912.

1,057,703.

Patented Apr. 1, 1913.

5 SHEETS—SHEET 2.

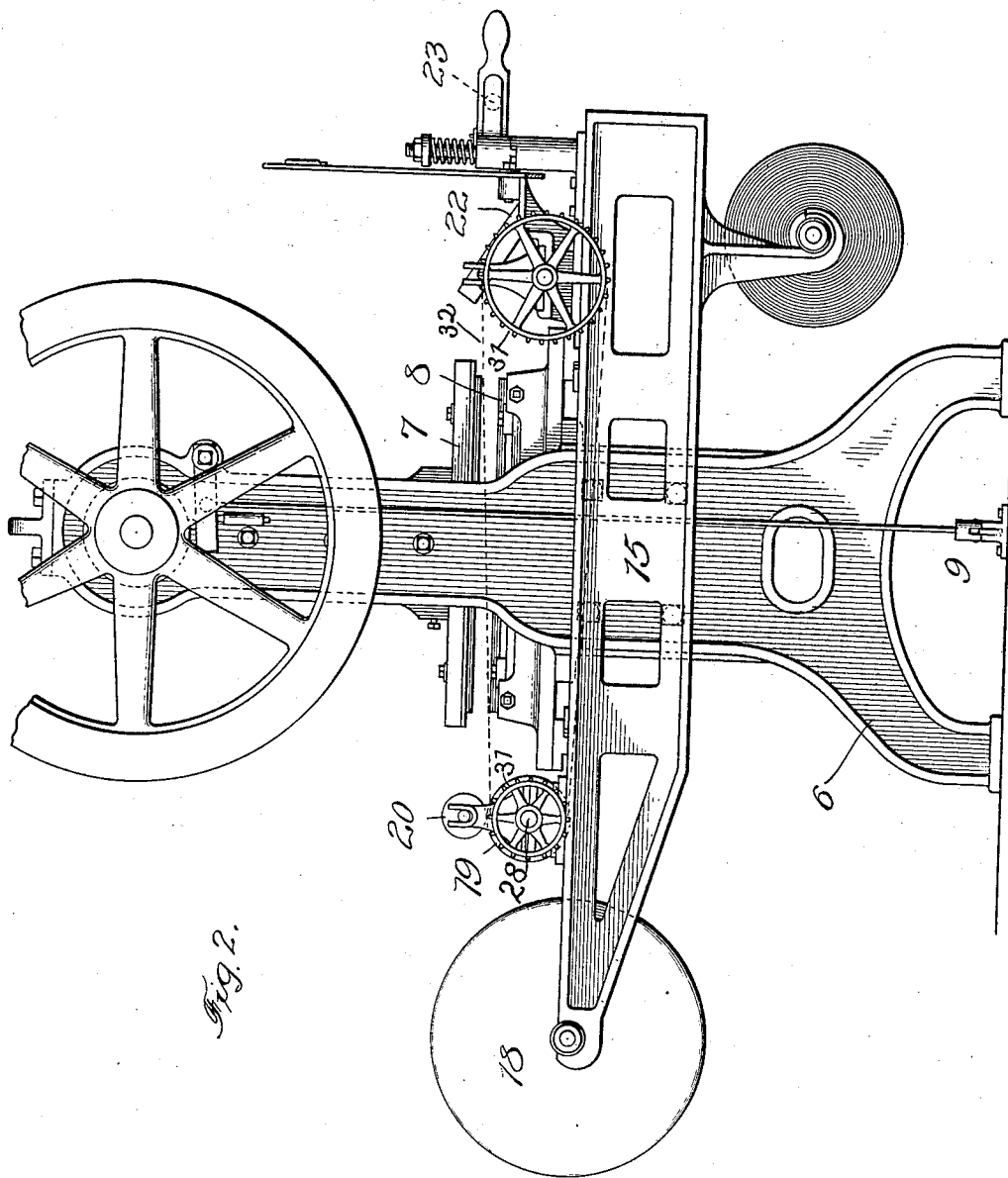


Fig. 2.

Witnesses:
C. E. Gaylord.
Chas. H. Buell.

Inventor:
Henry Bosch,
By Dyerford, Lee, Christen & Wilson,
Attys.

H. BOSCH.
MACHINE FOR CUTTING WALL PAPER AND THE LIKE.
APPLICATION FILED AUG. 22, 1912.

1,057,703.

Patented Apr. 1, 1913.

5 SHEETS—SHEET 3.

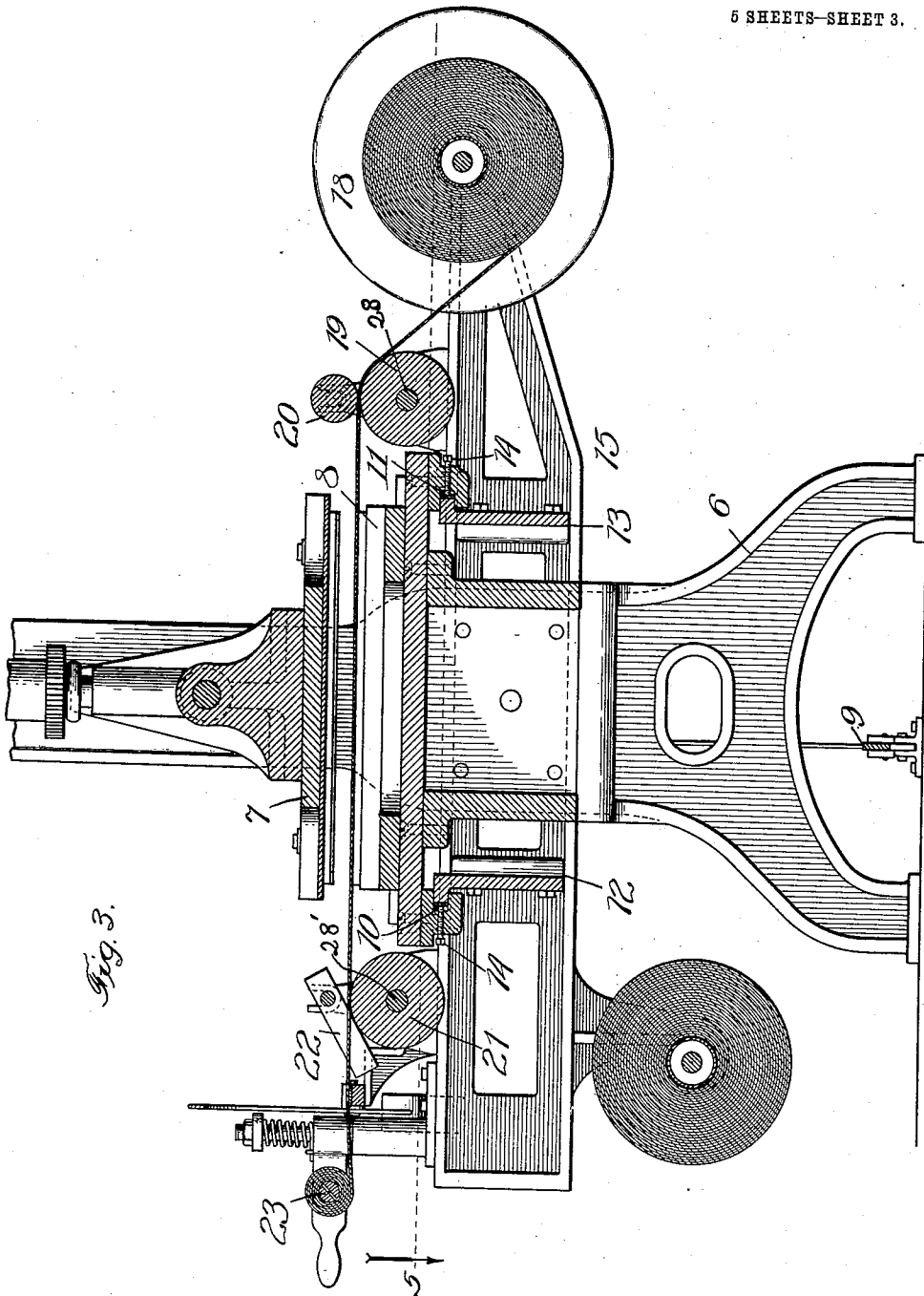


Fig. 3.

Witnesses:
Ed. J. Gaylord.
Chas. H. Bull.

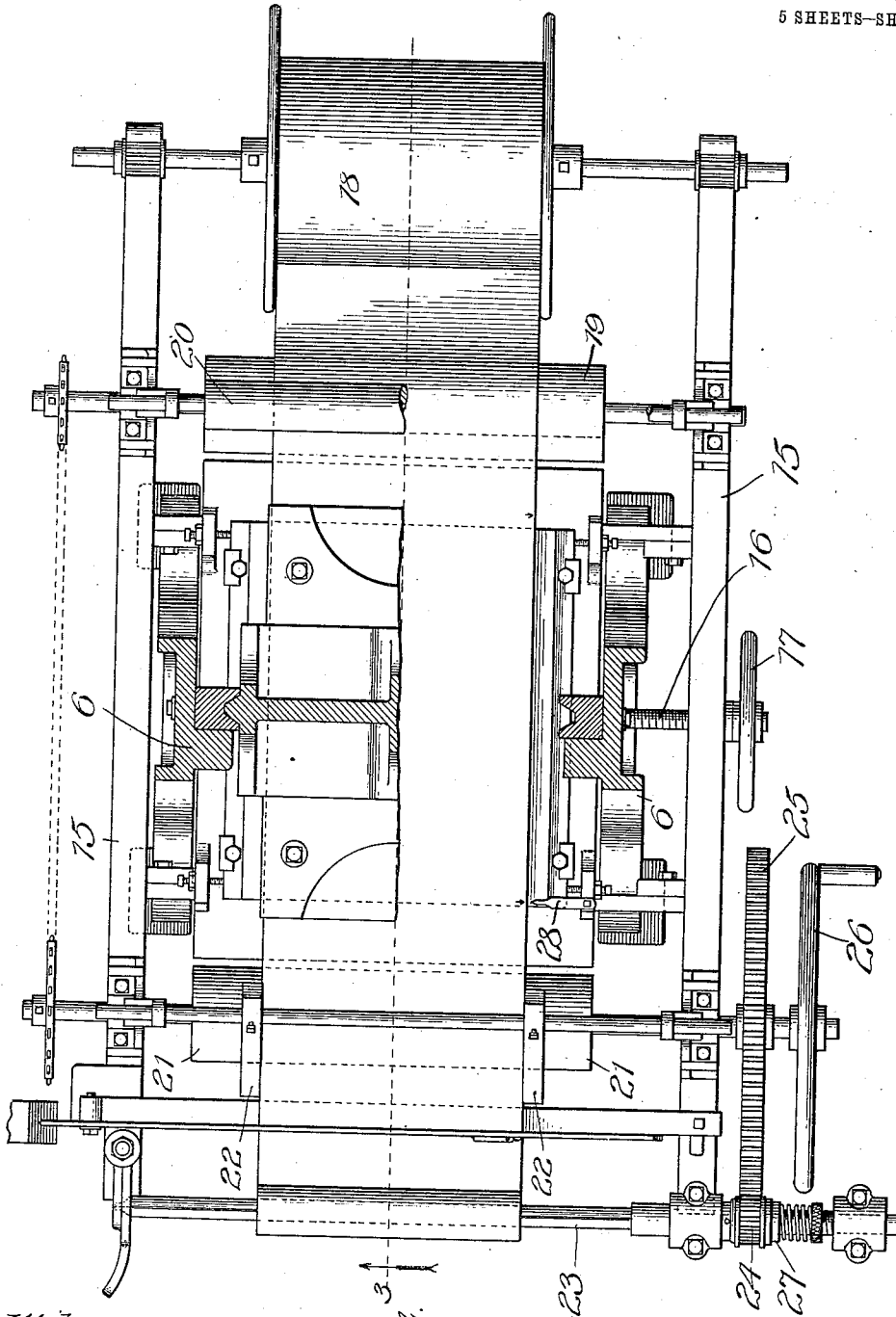
Inventor:
Henry Bosch,
By D. J. Greenfork, Lee, Chittum & Wiles,
Attys. S. & H.

H. BOSCH.
MACHINE FOR CUTTING WALL PAPER AND THE LIKE.
APPLICATION FILED AUG. 22, 1912.

1,057,703.

Patented Apr. 1, 1913.

5 SHEETS—SHEET 4.



Witnesses:
Ed. Payford,
Chas. H. Buell.

Fig. 4.

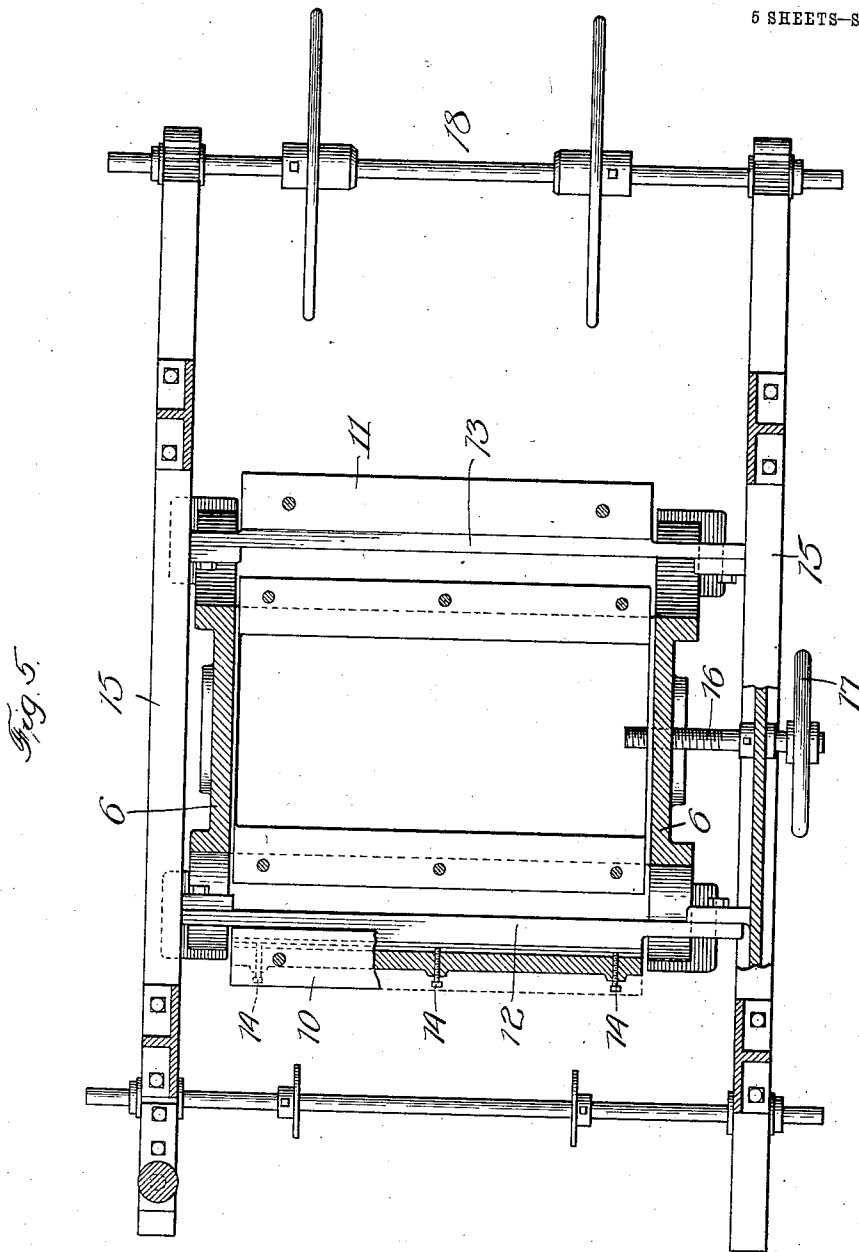
Inventor:
Henry Bosch,
By Dyerforth, Lee, Christen & Wiles,
Attys. #

H. BOSCH.
MACHINE FOR CUTTING WALL PAPER AND THE LIKE.
APPLICATION FILED AUG. 22, 1912.

1,057,703.

Patented Apr. 1, 1913.

6 SHEETS—SHEET 5.



Witnesses:
Chas. H. Bull,
Chas. H. Bull,

Inventor:
Henry Bosch,
By Dyrenforth, Lee, Croston & Wiles,
Attys.

UNITED STATES PATENT OFFICE.

HENRY BOSCH, OF CHICAGO, ILLINOIS.

MACHINE FOR CUTTING WALL-PAPER AND THE LIKE.

1,057,703.

Specification of Letters Patent.

Patented Apr. 1, 1913.

Application filed August 22, 1912. Serial No. 716,382.

To all whom it may concern:

Be it known that I, HENRY BOSCH, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Machines for Cutting Wall-Paper and the Like, of which the following is a specification.

My invention relates to certain new and useful improvements in machines for cutting wall-paper, and the like, and is fully described and explained in the specification and shown in the accompanying drawings, in which—

Figure 1 is a side elevation of the machine, looking from the lower side of Fig. 4; Fig. 2 is a similar elevation of the opposite side of the machine; Fig. 3 is a central longitudinal vertical section on the line 3 of Fig. 4; Fig. 4 is a horizontal section, the upper part of which is on the upper section-line marked 4, Fig. 1, and the lower part of which is on the lower section-line marked 4, Fig. 1, and Fig. 5 is a horizontal section on the line 5 of Fig. 3.

In the manufacture of wall-paper, particularly for borders, it is frequently desirable to trim one edge along an irregular line, as when, for instance, the border consists of a flower-pattern or the like, with an irregular lower-margin and it is desired to trim the lower edge of the paper along this irregular margin, the irregularities being, it will be understood, repeated at intervals along the paper as is common practice in printed papers of this character. For trimming the paper a die is used of proper configuration to make the necessary irregular cut along one pattern-figure of the border, so that by successively operating the die the entire roll may be trimmed. In the use of a die of this character, while the cut may be quite clean it is found in practice that the paper is not quite severed through or, at least, two severed parts hang together by a few of the fibers, so that the paper can be again rolled up into a cylindrical roll of the original dimensions, and this is advantageous because the rolling up, with the finished border of the severed and waste part, protects the irregular edge from injury in shipment and handling. The cut is so nearly complete, however, that the paper-hanger has no difficulty in completely and cleanly separating the parts in hanging the paper.

The machine here illustrated for performing the work above outlined consists of two separate parts which operate in combination, the one being the die-mechanism proper and the other the means for feeding the paper and properly positioning it.

In the accompanying drawings, 6 indicates generally the frame of the die, which is substantially the same as that in any ordinary die-press.

7 is the upper member of the die and 8 is the lower member, both constructed in the ordinary manner. The mechanism for operating the upper member 7 of the die is not illustrated in detail because no novelty is claimed therefor, the mechanism, however, being of ordinary character whereby the die will make a single reciprocation and then stop, its motion being initiated by a foot-lever 9 operating the ordinary clutch-mechanism in the ordinary way. The framework of the die carries two transversely-extending inwardly facing channels 10 and 11, in which lie the upward and outwardly-facing edges of transverse beams 12 and 13, set-screws 14 being provided for longitudinal adjustment. The transverse beams 12 and 13 form part of a framework wherein are mounted all the paper-carrying and positioning devices. In fact, the mechanism here shown may be considered to be composed of two parts, one of which is an ordinary die-press, differing in no essential respects from any other die-press, and the other the frame adjustable thereon and carrying all the paper-feeding and positioning mechanism. The frame referred to is generically lettered 15, as shown, and it may be of any desired construction, but it should be adjustable transversely with respect to the die-press, and preferably capable of a slight longitudinal adjustment, although this is not necessary. The transverse adjustment is secured through a screw 16 operated by a hand-wheel 17, the screw being journaled in the frame 15 and engaging a threaded opening in the frame of the die-press. By first loosening the set-screws 14 and then adjusting this screw 16, through the hand-wheel 17, the frame 15 can readily be adjusted transversely in an obvious way.

At the rear end of the machine, on the frame 15 is mounted a paper-carrying roll 18 for the untreated paper. The web of paper is led therefrom forward over a feed-roll 19, in contact with which it is firmly

held by an idler-roller 20, thence between the dies of the die-press, thence over a roller 21 and between lateral guides 22 to the receiving roll 23 upon which the web is again wound up, after being cut. The receiving roll 23 is driven by a pinion 24 in mesh with a gear 25 movable by a hand-wheel 26. The pinion 24 is loose on the shaft of the receiving-roll 23, and is held in frictional engagement through the medium of a collar 27 spring-pressed against the pinion to produce the frictional engagement in an obvious manner. The result of this construction is that by turning the hand-wheel the paper will be advanced, but under a yielding pull so that it can not be torn.

The paper on the reel is marked, as will be seen, with a series of arrows or other distinguishing marks along its border separated at the distances of the length of one figure of the pattern in the paper, and a pointer 28 is provided to register with said distinguishing marks.

The machine is operated in the following manner:—The roller 19 is secured to a shaft 28 which is mounted in brackets 29 on the frame 15 adjacent the rear end thereof, and said roller feeds the paper forwardly from the roll 18. The idler-roller 20 is mounted on a shaft 30, which shaft is mounted in bearings in the brackets 29, and serves to keep the web of paper in contact with the roller 19. The roller 21 is mounted on a shaft 28' adjacent the front end of the machine and feeds the paper forwardly to the receiving roll 23. On one end of the shafts 28 and 28' are mounted sprocket wheels 31, connected by a chain 32, whereby motion is communicated from the shaft 28' to the shaft 28 when said first-referred to shaft is actuated by the hand-wheel 26. The reel of wall-paper, one edge of which is to be cut off in the manner set forth in the earlier part of this specification, is placed upon the reel 18, and its end is fed through the machine, it being understood that the proper die has been fixed in place in the die-press in advance of such operation. The paper is then adjusted longitudinally until the pattern has the longitudinal position of the corresponding parts of the die, and the pointer 28 is adjusted then to correspond with the adjacent indication mark on the paper fixed in position. The frame is then adjusted transversely in the manner heretofore set out, until the paper is in the proper position and directly over the guide, which being determined, the transverse adjustment

of the frame with reference to the dies is fixed and the machine is set in operation. In its operation the hand-wheel, through which the paper is fed forward, is rotated until one of the indicating marks on the web comes opposite the pointer, whereupon the die is operated by pressure of the foot on the foot-lever, and on the rise of the die the paper is fed forward the distance of another figure of the pattern, or until the next succeeding arrow, or indicator, on the margin of the web is opposite the pointer, when the die is again operated. As heretofore stated, the die does not completely sever the paper in the sense that there are at least slight connections between the two portions and the two are therefore wound up together on the receiving roll.

I am aware that considerable variation is possible in the details of the construction herein shown and described, and I therefore do not intend to limit myself to such construction specifically; my intention being, in the claims hereinafter set forth to specify all the novelty which is inherent in the construction illustrated.

What I claim as new and desire to secure by Letters Patent is:

1. In combination a die-press, a frame attached thereto, paper-feeding means carried by the frame, and means to adjust the frame transversely to properly position the paper-feeding means relative to the dies.

2. In combination a die-press, a frame attached thereto, paper-feeding reels carried by the frame, and means to adjust the frame transversely to bring the paper-feeding means into proper registry with the dies.

3. In combination a die-press, a frame, paper-feeding and reeling means carried by the frame, a screw-threaded connection between the frame and die-press for adjusting the frame transversely, and means for locking the frame in position, for the purpose set forth.

4. In combination, a die-press and a frame secured together by intermeshing guides, whereby the frame is capable of transverse adjustment, paper-reeling and feeding means carried by the frame, and a screw-threaded connection between the frame and the die-press for adjusting the two relatively upon their intermeshing guides.

HENRY BOSCH.

In the presence of—

L. HEISLAR,

R. SCHAEFER.