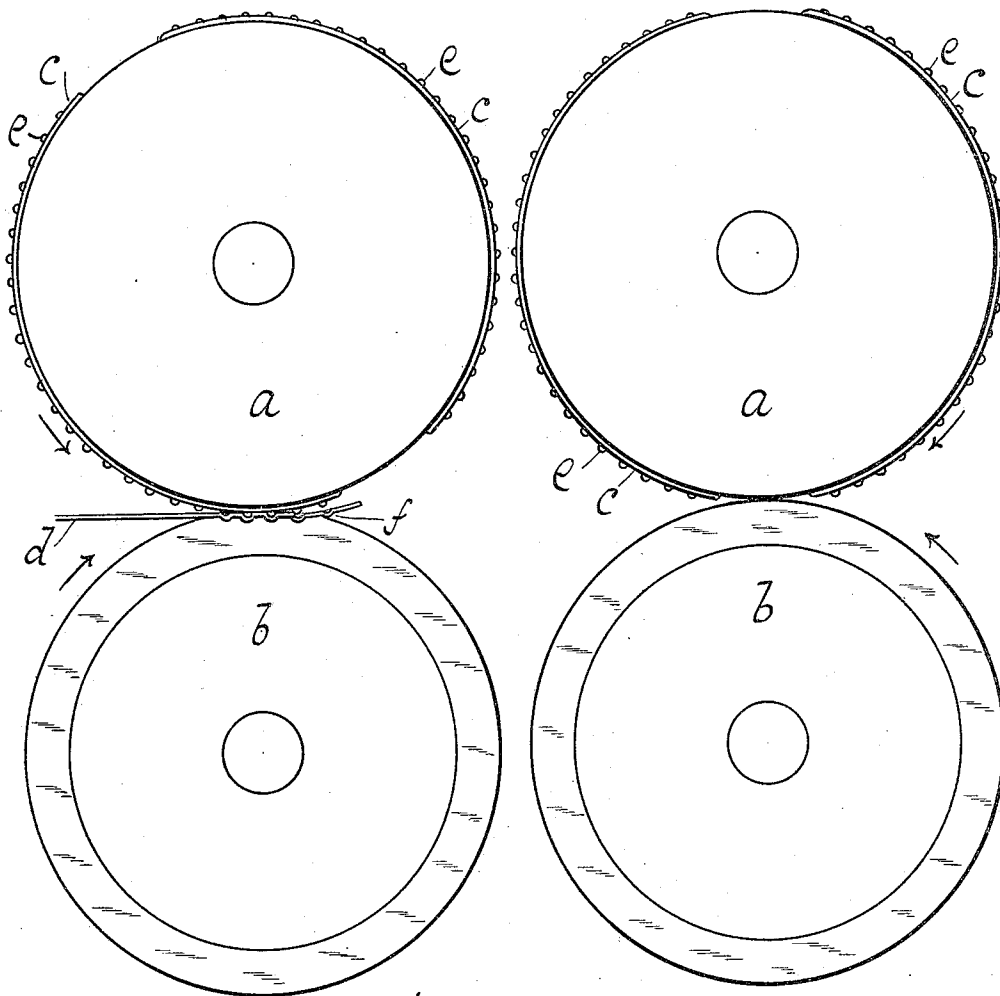


W. B. WAIT.
MARGINAL HOLDING DEVICE.
APPLICATION FILED SEPT. 24, 1912.

1,060,387.

Patented Apr. 29, 1913.
2 SHEETS—SHEET 1.

Fig. 1.



Witnesses:
William Miller
Chris. H. Almstaedt

Inventor
William B. Wait
By his Attorneys
Hauff & Wurland

W. B. WAIT.
 MARGINAL HOLDING DEVICE.
 APPLICATION FILED SEPT. 24, 1912.

1,060,387.

Patented Apr. 29, 1913.

2 SHEETS—SHEET 2.

Fig. 2.

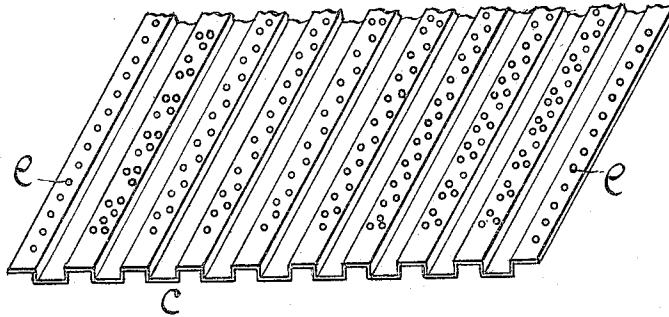


Fig. 3.

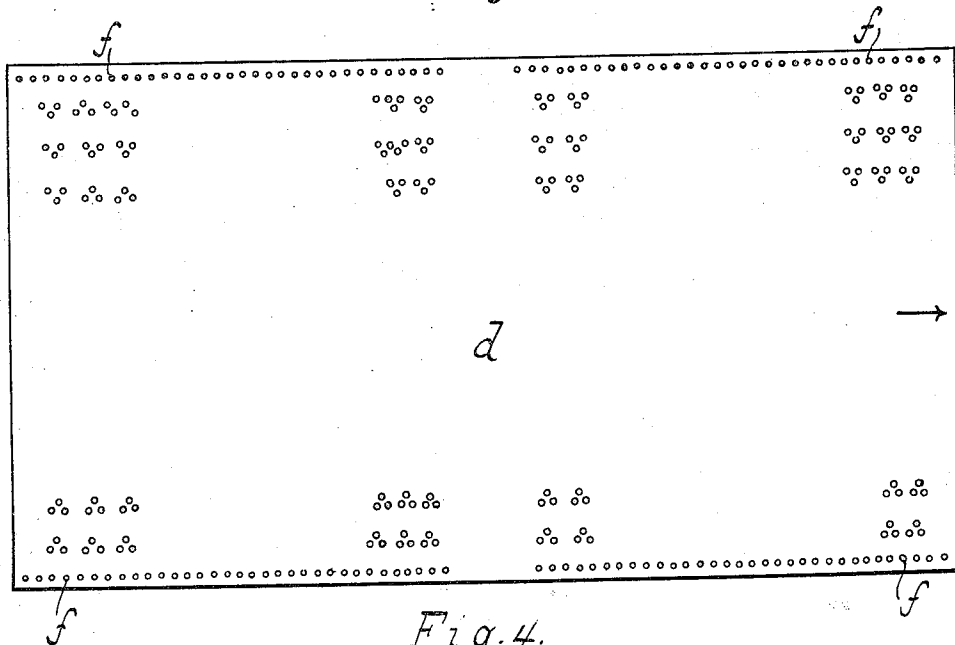
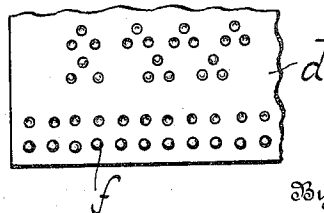


Fig. 4.



Witnesses:
 William Miller
 Chris. H. Almstaedt

Inventor
 William B. Wait
 By his Attorneys
 Huff & Winters

UNITED STATES PATENT OFFICE.

WILLIAM B. WAIT, OF NEW YORK, N. Y.

MARGINAL HOLDING DEVICE.

1,060,387.

Specification of Letters Patent.

Patented Apr. 29, 1913.

Application filed September 24, 1912. Serial No. 722,005.

To all whom it may concern:

Be it known that I, WILLIAM B. WAIT, a citizen of the United States, residing at New York, county of New York, State of New York, have invented new and useful Improvements in Marginal Holding Devices, of which the following is a specification.

This invention relates essentially to devices for engaging the sheet while the impressions are being produced and it is adapted to be applied to the embossing machine shown in the U. S. Patent #900,622, granted to me October 6th 1908.

The invention consists in the novel method of holding the margins of the sheet while it is being fed between the cylinders. The embossing plate has elevations and depressions with raised characters for printing literature, music, and the like, for reading by the blind, and it is provided with indentations for holding the margin of the sheet of paper while it is being embossed. This indenting device may form an integral portion of the embossing plate or may be separate therefrom and mounted or fixed on the cylinder. The lines of indentations or points are equal and minimum distances apart and are so placed that they hold the paper in advance of the embossing impression. The indentations extend continuously along the margin of each plate, and in combination with the impression cylinder will engage the sheet and prevent it from creeping.

Heretofore it has been found in printing without this device that the paper was drawn inward from the margins, thus giving more paper than the printed surface required, and preventing proper alinement, also resulting in ruffling or creasing the sheet of paper toward the end of the impressions.

The function of the device is to secure the paper at the margins shortly before the embossing begins, and to maintain its hold upon the margins continuously throughout the impression. In this instance the device prevents the lines impressed upon one side of the leaf from interfering with the lines embossed on the reverse side of the sheet.

The device has the advantage of greatly reducing the cost of embossed printing for

the blind as it permits the use of lighter and less expensive papers which is much to be desired, owing to the great bulk of the paper ordinarily used in this kind of printing.

The novel features of the invention are more fully described in the following specification and claims and illustrated in the accompanying drawings in which:

Figure 1 represents a diagram of an embossing machine embodying this invention. Fig. 2 is a perspective view of an embossing plate. Fig. 3 shows a sheet partly embossed. Fig. 4 is a fragmentary view of a sheet showing both sides embossed.

In this drawing the letter *a* designates the embossing cylinders and *b* are the impression cylinders. These cylinders are arranged in pairs and the embossing cylinders have elevations and depressions on which are fitted correspondingly shaped plates *c* with the embossed characters formed on the plates. The first pair of cylinders emboss one side of a sheet of paper *d* while the other pair of cylinders emboss the reverse side of the paper. Each impression cylinder *b* has an elastic jacket whereby the embossed characters are produced; the foregoing parts of the machine are well known.

Each plate is provided with a line or row of indentations *e* best seen in Fig. 2, which when the sheet is fed between the cylinders engage the margins of the sheet and prevent it from shifting. These devices *e* impress along the margins of the sheet, a row of indentations *f*, as indicated in Figs. 3 and 4. The indentations on the margins of the sheet do not represent any meaning in the reading of the sheet. These indentations are preferably equal distances apart and are quite close together so that all portions of the sheet will be evenly tensioned and held while the embossed characters are being produced.

I claim:

1. In an embossing machine the combination with a plurality of cylinders, of plates carried by the cylinders for simultaneously embossing characters on both sides of a sheet of paper, a series of projections forming an integral portion of the plates for indenting the margins of the paper equal distances apart while the impressions are produced.

2. In an embossing machine the combination with a plurality of embossing and im-

pression cylinders, of plates carried by the
embossing cylinders for embossing charac-
ters on both sides of a sheet of paper, and
means comprising an integral portion of the
5 plates for indenting a series of impressions
along the margins of the paper while the
impressions are being produced.

In testimony whereof I have hereunto set
my hand in the presence of two subscribing
witnesses.

WILLIAM B. WAIT.

Witnesses:

CHRISTIAN H. ALMSTAEDT,
WILLIAM MILLER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents
Washington, D. C."