

March 22, 1932.

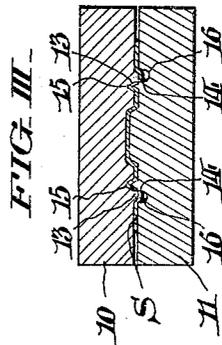
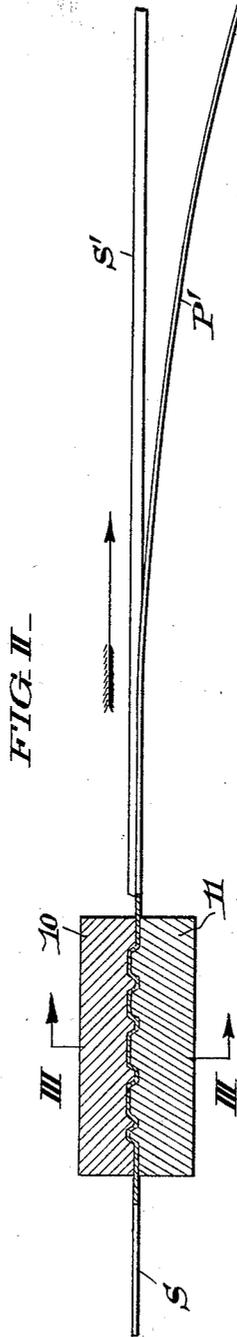
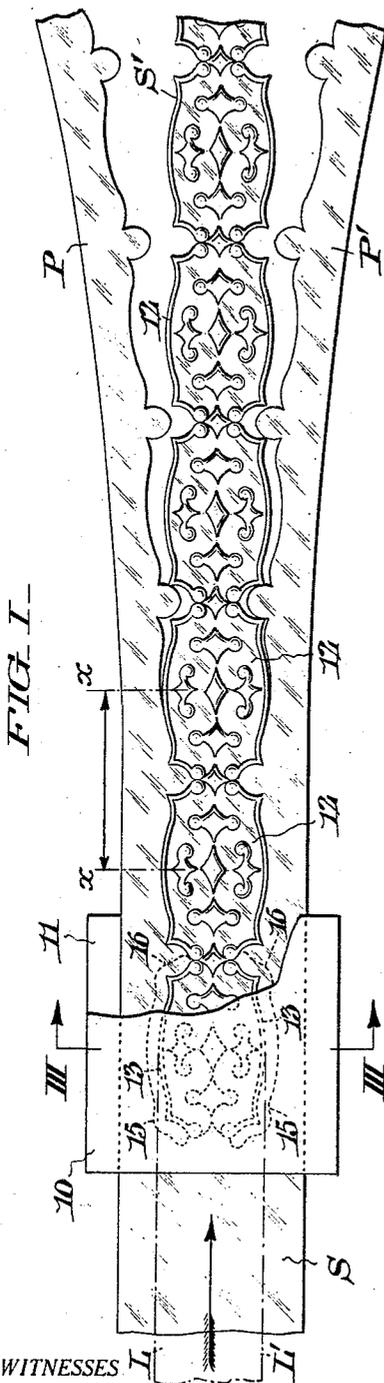
F. WEINDEL, JR

1,850,856

ORNAMENTALLY EMBOSSED STRIP MATERIAL

Filed July 11, 1930

2 Sheets-Sheet 1



WITNESSES
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2 Sheets-Sheet 2

FIG. IV.

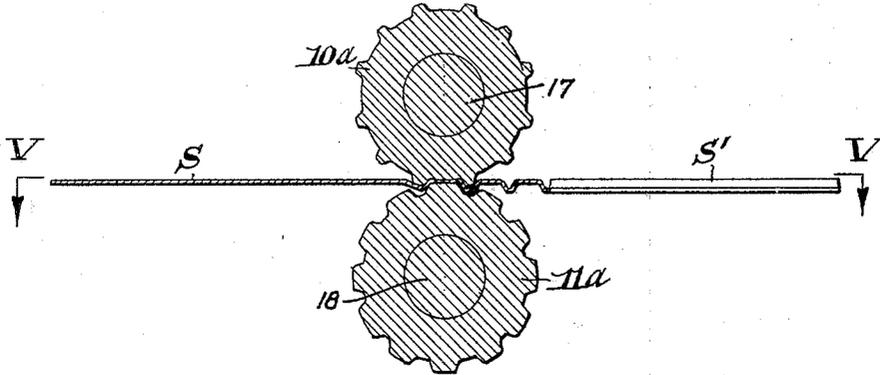


FIG. V.

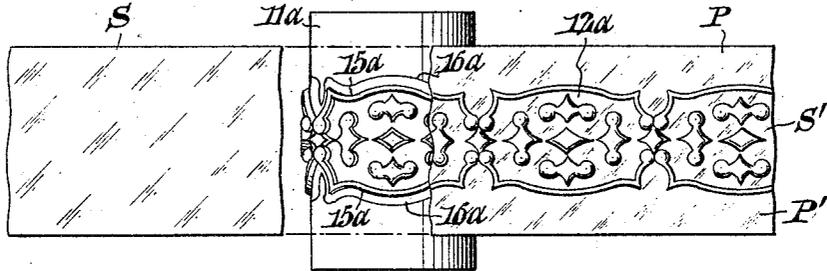


FIG. VI.

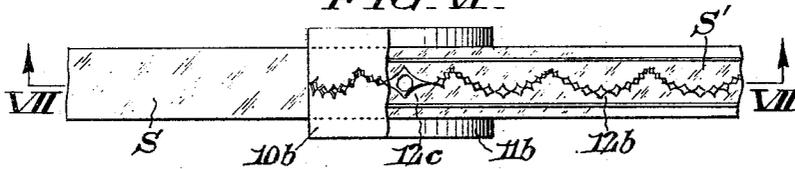
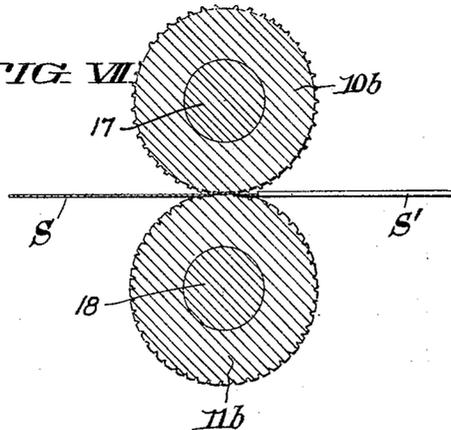


FIG. VII.



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UNITED STATES PATENT OFFICE

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ORNAMENTALLY EMBOSSED STRIP MATERIAL

Application filed July 11, 1930. Serial No. 467,327.

This invention relates to ornamentally embossed strip material, as well as to methods and means for producing such material.

The chief aim of my invention is to secure the advantages of strength, durability and capacity for diversified finishes more or less characteristic of metal in the production of thin, pliable, ornamentally embossed strip material of a kind useful, in lieu of strip paper or the like, in edging or otherwise embellishing paper or other boxes of various kinds, in securing wrapping paper about packages, in outlining panels of wall paper, etc.

My invention also comprehends the fabrication in the form of a metallic strip of a series of identification labels, initial labels for attachment to personal stationery, trademarks for application to business letters or packages, Christmas seals, etc., from which strip the individual labels or seals may be cut as needed.

My invention is further directed to the fabrication of ornamentally embossed metallic strip material with irregular edges that outline and thereby emphasize the design figures.

Another aim of this invention is to provide suitable impression dies by aid of which either straight edged or irregular edged ornamentally embossed metallic strip material may be economically and expeditiously produced in quantity on standard or commercial types of sheet metal embossing machines.

Still other objects and attendant advantages of this invention will be manifest from the detailed description following in which reference is had to the attached drawings, wherein Fig. I is a diagrammatic plan view showing a novel die means for producing my metallic strip material in a form suitable for use as an edging or binding.

Fig. II shows a longitudinal sectional view of the die means.

Fig. III is a cross sectional view of the die means, taken as indicated by the arrows III—III in Figs. I and II.

Fig. IV is a view similar to Fig. II showing an alternative form of die means for producing strip material of the kind illustrated in Fig. I.

Fig. V is a plan of the immediately forego-

ing die means; viewed as indicated by the arrows V—V in Fig. IV, a portion of the metallic strip being broken out to expose the lower component of the die means.

Fig. VI is a plan view of a die means for producing a metallic edging strip of a different design, the upper die component being in this instance partly broken away to expose parts beneath.

Fig. VII is a longitudinal sectional view, taken as indicated by the arrows VII—VII in Fig. VI; and,

Fig. VIII shows still another kind of metallic strip material produced in accordance with the present invention.

In the embodiment of my invention shown in Figs. I—III, I have provided a die means whereof the upper component or member is indicated at 10 and the lower component or opposing member at 11. These die members 10, 11 may be used in any standard or commercial type of sheet metal embossing machine to impress in longitudinal sequence upon a blank strip of metal S juxtapositioned design figures such as shown at 12; the feeding mechanism of the embossing machine being set to advance the strip S; during each period of separation of the die members, an increment $x-x$ equal to the distance from center to center of the design figures. In the illustrated instance, the die members 10, 11 outline the design figures 12 by severing marginal portions P, P' of the strip S in conformity with the design outlines, without however substantially crosswise severing the strip. To accomplish this, the die members 10, 11 are provided with coordinated cutting edges 13, 14 respectively, said cutting edges being formed by recesses 15, 16 which, it will be noted, extend along opposite side edges of the design figures 12 on the two die members 10, 11 but do not meet at the ends. By thus severing or cutting in the margins P, P' between the successive individually complete designs 12, 12 and cutting out marginal portions intermediate said designs 12, 12, the latter are partially separated and their individually of outline is very effectively emphasized, while they are still left residually interconnected. It will moreover be noted

from Fig. I that the length of the cutting edges 13, 14 of the die members 10, 11 is such that each new cut overlaps the previously made cut so that the marginal strips P, P' are cut completely away from the finished embossed strip S'. In this way it is possible with an ordinary embossing machine, to continuously form ornamented metallic strip material S' with cut edges outlining partially separated design figures 12, the ornamentation being of course capable of unlimited variation. Suitable means may be provided in the embossing machine for separately collecting the embossed strip S' and the waste marginal strips P, P'. In certain instances where the design is simpler than shown in Fig. I, it is possible to use a narrower blank strip S, for example, of the width shown by the dot and dash lines L, L' in Fig. I so that instead of continuous waste strips, only small cutout pieces intermediate the successive designs 12, 12 result from the severing of the metal incident to outlining the design figures 12.

In Figs. IV and V, I have shown a die means wherein the opposing die members 10a, 11a are of the rotary type and revolve on independent axes 17, 18, the blank metallic strip S being passed between them to receive embossed impressions 12a, which are identical with those illustrated in the embodiment shown in Figs. I-III.

Figs. VI and VII show a rotary die mechanism with revolving components 10b, 11b, like those of Figs. IV and V for producing metallic strip material S' characterized with different design figures 12b, 12c. Similar variegated designs may of course be produced by opposing reciprocating dies, such as shown in Figs. I-III, through periodic substitution of the dies forming the figures 12c for the dies forming the figures 12b, incident to intermittent progression of the strip S; all in a manner which will be readily apparent to those skilled in the sheet metal embossing art.

In actual practice, ornamentally embossed strip material, of the kinds illustrated in Figs. I, V and VI, may be made from very thin metal and provided with an adhesive backing so as to be utilizable in lieu of paper strip material as an edging for paper boxes, as a binding for packages or bundles, as ornamental border stripping to outline panels in wall papering, as a covering for butt joints between wall boards used in building partitions, etc. In addition to being embossed, my improved strip material may be polished on the high spots, burnished, enamelled in different or contrasting colors, or otherwise treated with attainment of the diversified finishes and effects possible only with metal. My improved strip material S' is moreover stronger and more durable than strip material of paper, and, by virtue of its extreme

thinness, it is not very much heavier than paper nor very much more expensive to produce. It lends itself readily to packaging in rolls for the market, and can therefore be placed in devices such as are available for dispensing of strip paper.

By use of either reciprocating or rotary dies, it is furthermore possible through my invention to produce metallic labels or seals in strip form as illustrated in Fig. VIII, from which strip the seals may be individually detached by cutting crosswise of the blank intervals 20 between the impressions 12d as needed for application to writing paper, packages, etc.

Having thus described my invention, I claim:

1. As a new article of manufacture, a continuous metal-faced, adhesive-backed, irregular-edged sheet strip ornamented with a series of individually complete designs embossed in the strip and emphasized by conformity of the irregular edges of the strip to the design outlines, the margins of said strip being cut in or severed between the designs so as to partially separate the latter in their individuality of outline, while still leaving them residually interconnected.

2. A method of producing continuous ornamental metal-faced strip sheet material which comprises die pressing a series of embossed designs in succession along a strip of the sheet material and concurrently cutting away marginal portions of said strip, without, however, severing the strip transversely.

3. A method of producing continuous ornamental metal-faced strip sheet material which comprises die pressing a series of individually complete embossed designs in succession along a strip of the sheet material and at the same time successively cutting out intermediate marginal portions of the strip, so as to outline said embossed designs.

4. An embossing die means for producing continuous ornamented metallic strip material with irregular edges outlining embossed partially-separated design figures in serial sequence, said die means comprising opposing components with cooperative cutting edges along longitudinal sides only to make marginal cuts at each operation in continuation with similar cuts made during the immediately preceding operation.

5. An embossing die means for producing continuous metallic strip material with irregular edges outlining embossed partially-separated design figures in serial sequence, said die means comprising opposing die components with cooperative cutting edges to sever the margins of the strip in outlining the design figures.

In testimony whereof, I have signed my name at Allentown, Pennsylvania, this ninth day of July, 1930.

FRED WEINDEL, JR.