E. Harmon.

Envelope Mach.

No. 23300. Patented Mar. 22. 1859.

Fig. 3

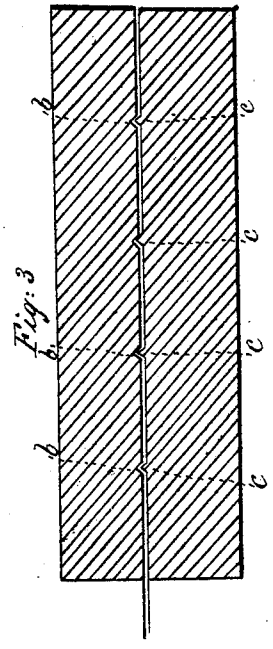


Fig. 4

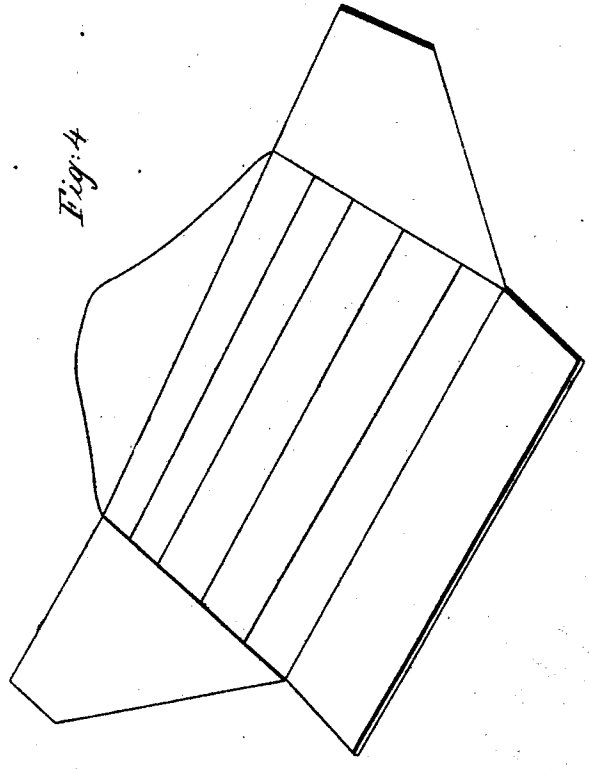


Fig. 1

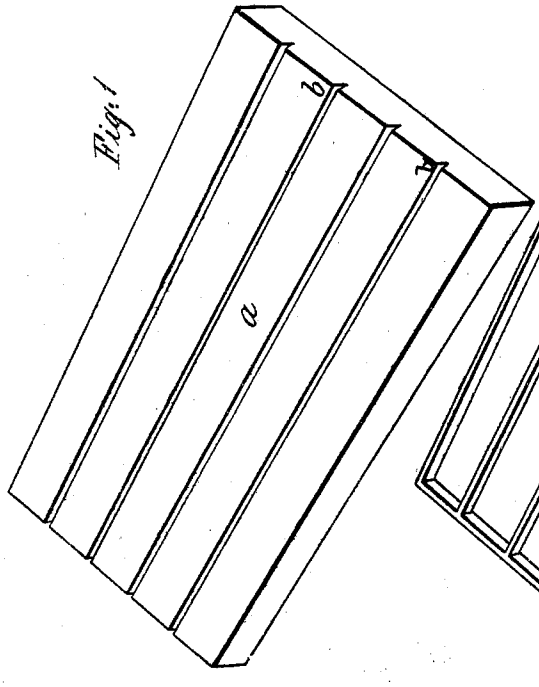
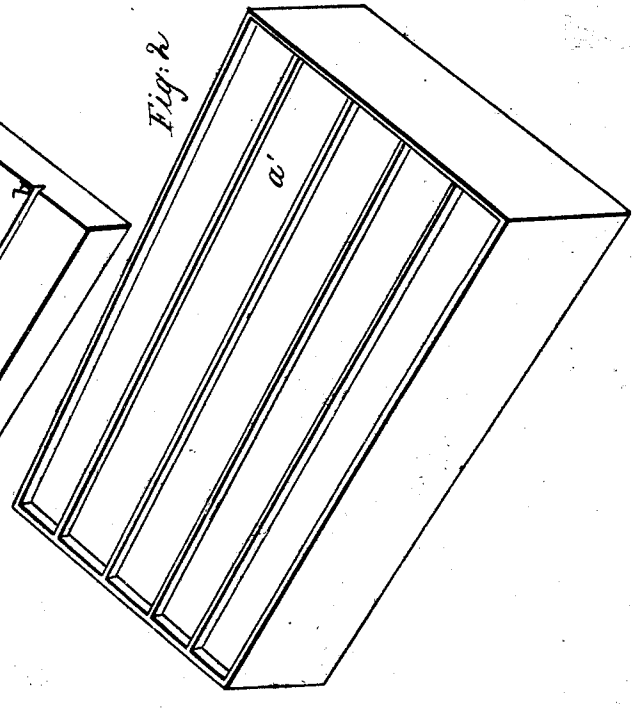


Fig. 2



UNITED STATES PATENT OFFICE.

E. HARMON, OF WASHINGTON, DISTRICT OF COLUMBIA.

LETTER-ENVELOP.

Specification of Letters Patent No. 23,300, dated March 22, 1859.

To all whom it may concern:

Be it known that I, EMANUEL HARMON, of Washington, in the District of Columbia, have invented an Improvement in the Process of Manufacturing Envelops, and that the following is a full, clear, and exact description of the principle or character which distinguishes it from all other things before known and of the usual manner of making, modifying, and using the same, reference being had to the accompanying drawings.

My invention consists in a new and improved method or process for making letter envelops ready ruled by machinery in the process of formation.

I am aware that envelops may have been ruled by hand by the purchaser or consumer in the same way that paper was formerly ruled for being written upon, but hitherto no machinery has been devised or used, by which envelops could be ruled in the process of manufacture, or by which they could be made of ruled paper, so as to have the lines perfectly parallel, with the sides of the envelop when finished.

My improvement contemplates the ruling or lining of the inside or outside of that part of the envelop upon which the address is to be written. This lining being done by machinery in the process of forming the envelop, the lines will be perfectly true and parallel with the sides of the finished envelop. By this means a cheap, neat and convenient article for the daily use of all letter writers will be furnished.

The lining may be done with ink or with any other lines either colored or colorless. I prefer, however, to emboss the lines in the process of manufacturing the envelop by the following method.

That part of envelop machinery well known as the "former," is represented in Figure 1, and the bed plate upon which the envelop is pressed, is shown in Fig. 2.

The surfaces *a a'* of the former and bed plate are ribbed and grooved, as shown at *b b c c*, making a die and counter die. By this improvement upon this portion of the ordinary envelop machine, which I have invented, the face of the envelop is embossed with lines parallel to its sides during the operation of forming it.

The ribs and grooves are exaggerated in the drawing, but in practice the elevation of the ribs and depression of the grooves is very slight to effect the required impression upon the paper. Fig. 3, in section shows the former and bed plate in the act of embossing, and Fig. 4, shows an envelop ruled or lined upon the part where the address is to be made. Should it be preferred, however, to make the lines with printer's ink or other coloring matter that can be done by using the ribbed surface above described as a sort of engraving block and discarding the grooved surface altogether. The ribs of this surface may be inked in the same way as printer's type by the hand, before each impression or act of formation of the envelop is performed and the print may be made upon the inside or outside of the face of the envelop as preferred, by simply placing the ribbed surface in the bed plate or in the former. Otherwise I construct the ruled or lined envelop with machinery in the ordinary way. Other equivalent means of effecting the same result will readily suggest themselves to the skilful mechanic, all which are intended to be embraced in the patent I now seek.

The patent granted to me on the 20th of November 1855, has for its subject matter the preparation of a certain kind of envelop, as a new commodity or manufacture. This patent may, I think, be fairly deemed to include all the envelops proposed to be made by the process I now seek to patent. I do not, therefore, claim the right of making any of those envelops under the new patent without a license from the proprietors of the old. To this extent, therefore, the patent for which I am now applying is to be regarded as subordinate to that which I have already obtained.

What I now claim as my invention, and desire to secure by Letters Patent is—

The method or process of preparing letter envelops ready ruled in the process of manufacture, substantially in the manner and for the purpose hereinbefore set forth.

E. HARMON.

Witnesses:

CHAS. G. PAGE,

H. H. HELPER.