

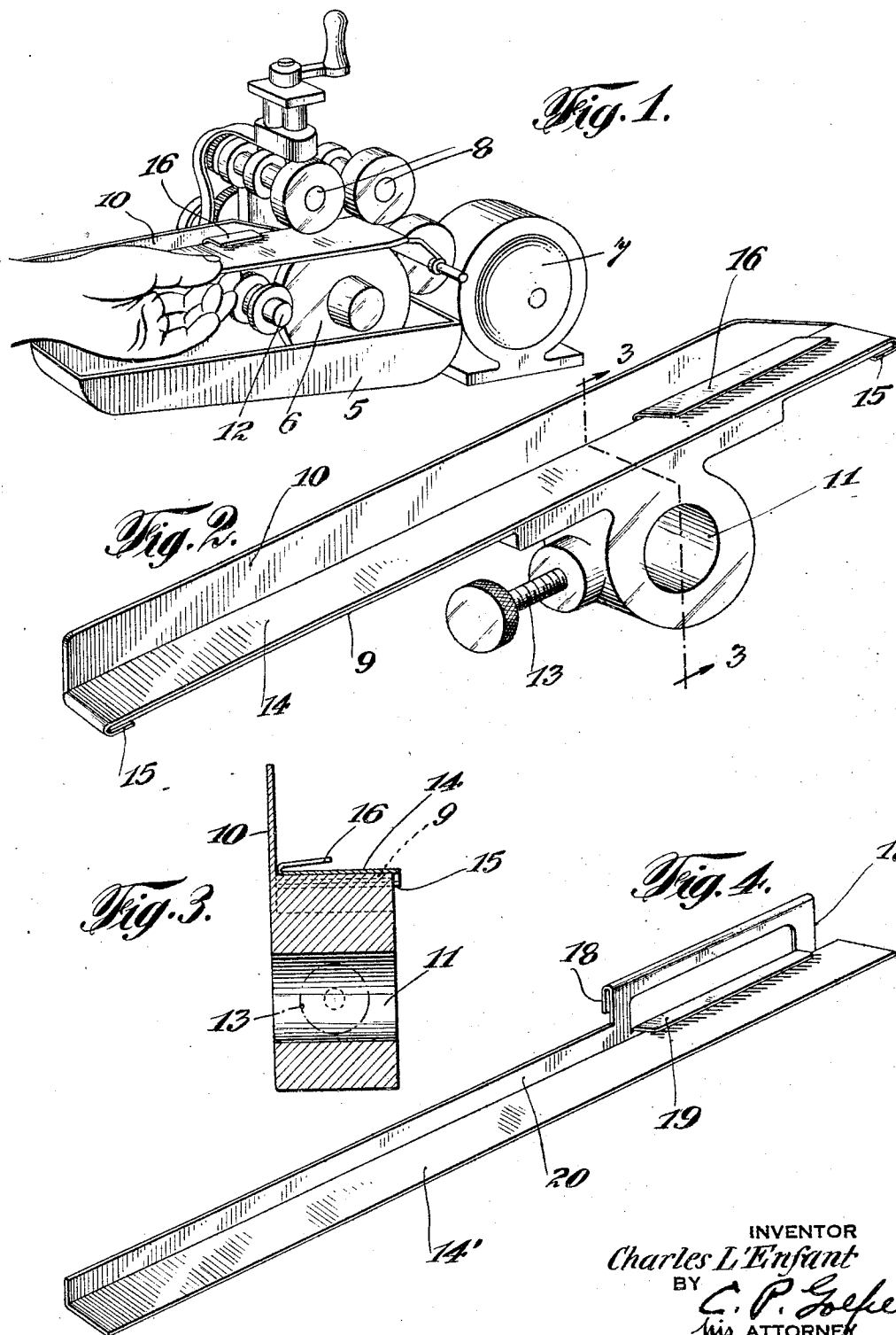
Nov. 24, 1931.

C. L'ENFANT

1,833,027

WORK GUIDING MEANS

Filed Sept. 28, 1929



INVENTOR
Charles L'Enfant
BY
C. P. Giefel
his ATTORNEY

UNITED STATES PATENT OFFICE

CHARLES L'ENFANT, OF NEW YORK, N. Y.

WORK GUIDING MEANS

Application filed September 28, 1929. Serial No. 395,983.

This invention relates to work-guiding means, and has for its primary object and purpose to provide a very simple device for accurately guiding the work so that a definitely limited part thereof will be properly operated upon by the machine.

It is a more particular object of the invention to provide such work-guiding means particularly designed for use in connection with glue applying machines for the purpose of applying glue or other adhesive to the marginal edges of flexible materials, such as the cloth or leather parts used in the manufacture of billfolds, card cases and other manufactured articles.

It is an additional object of the invention to provide such work-guiding means in the form of an attachment which may be inexpensively produced from a single sheet of metal and is provided with means for detachable engagement with a part of the guide rail or shelf of a standard type of gluing machine heretofore capable of use only in connection with substantially rigid sheets of material, and said attachment also having means adjacent to the glue applying roller which will effectively prevent buckling or flexing of the marginal edge of the sheet of material as it is fed to the machine.

With the above and other objects in view, the invention consists in the improved work-guiding means, and in the form, construction and relative arrangement of its several parts as will be hereinafter more fully described, illustrated in the accompanying drawings, and subsequently incorporated in the subjoined claims.

In the drawings, wherein I have disclosed several simple and practical embodiments of my present invention, and in which similar reference characters designate corresponding parts throughout the several views,—

Figure 1 is a perspective view of a well known type of margin or edge gluing machine illustrating the manner and use of my invention;

Fig. 2 is an enlarged detail perspective view illustrating one embodiment of my invention and showing the same as applied to

the work-guiding ledge or shelf of the machine;

Fig. 3 is a transverse sectional view taken on the line 3—3 of Fig. 2, and

Fig. 4 is a perspective view showing a slightly modified form of the attachment.

In Fig. 1 of the drawings, I have shown a machine of the kind which is generally used for the purpose of applying glue or other adhesive to the marginal edges of relatively stiff sheets of cardboard used for the purpose of reinforcing flexible leather walls or fabric lining sheets of billfolds, purses, card cases, and articles of similar character. As shown, this machine is provided with a glue pan indicated at 5 in one end of which, the lower portion of a rotatably mounted glue applying disc or wheel 6 is immersed. This disc is operated through the medium of suitable gearing from the motor indicated at 7 which also operates the two pressure rolls shown at 8 arranged above the disc or wheel 6 in the plane thereof and suitably spaced from its periphery. This machine at the rear side of the pan 5, is also provided with a horizontally extending guide ledge or shelf of angular form in cross section having the horizontal flange 9 and the vertical flange 10 extending upwardly from the rear edge of the horizontal flange. The flange 9 is provided on its under side with a sleeve 11 adapted to be fitted upon a shaft 12 and removably fixed thereto by the set screw 13.

The machine above described is quite satisfactory when used for the purpose of applying glue to the edges of such stiff materials as cardboard, the cardboard sheet being positioned on the flange 9 with its edge abutting against the face of the vertical flange 10 so that as the sheet is moved along the guide shelf, its marginal edge portion will be accurately guided and directed between the pressure rollers 8 and the glue applying rollers 6. Of course, when the sheet is again moved over said guide shelf to apply the glue to another edge thereof, the collection of a portion of the glue which was previously applied to an edge of the sheet upon the upper surface of the flange 9 is unavoidable, and it is necessary for the operator to frequently

clean off the surface of this guide flange. My present invention is designed with a view to enabling such machine to be also used for the purpose of accurately applying the glue or adhesive to the marginal edges of flexible sheets of leather or fabric and to also avoid the delays incident to the frequent cleaning of the surface of the guide flange, thus resulting in increased production and lower manufacturing cost of the billfold or other article.

To this end thereof, the invention consists essentially in a work-guiding attachment which may be removably applied to the fixed guide ledge or shelf of such a machine. As seen in Fig. 2 of the drawings, the attachment consists of a strip of sheet metal 14 of substantially the same width as the width of the shelf flange 9, said sheet metal strip being of sufficiently greater length than said flange whereby the ends of the strip 14 may be inwardly bent as at 15 to provide clamping hooks engaging over the ends of the flange 9 and against the under side of said flange to thereby detachably hold the strip 14 in superimposed relation upon the upper surface of said flange 9.

The sheet metal strip 14 adjacent one of its ends has a part 16 integrally formed upon one edge of the strip and extending longitudinally thereof. This part is bent inwardly and downwardly in substantially parallel relation to the upper face of the strip 14 and closely adjacent thereto to thereby provide a guiding flange on said sheet metal strip contiguous to the gluing roller or disc 6.

In the use of the device above described, the marginal edge portion of the flexible leather or fabric work piece is placed by the operator upon the upper surface of the strip 14 with the edge thereof extending under the flange 16, and in bearing contact with the bend in the metal sheet at the juncture of said flange with the edge of the strip 14. This flange thereby effectually prevents the extreme edge portion of the fabric or leather sheet from buckling or turning upwardly, as the sheet is moved beneath said flange and advanced between the gluing disc and the pressure discs 8. Thus, as the sheet is fed between the discs, the glue or other adhesive will be accurately and precisely applied to the predetermined limited marginal edge portion of the under side of said sheet. If the adhesive is also to be applied to other edges of the sheet, this operation above described is repeated. Of course, a certain amount of the glue previously applied to the marginal edges of the sheet will be taken off and collected on the upper surface of the sheet metal strip 14. However, by keeping a number of these attachments on hand, after a certain period of use of one attachment, it may be readily removed from the flange 9 of the supporting ledge or shelf, and immersed in a suitable cleaning solution, and

another clean guiding attachment substituted in its place.

In Fig. 4 of the drawings, I have shown an alternative embodiment of the device, in which the sheet metal strip 14' is not provided with the attaching hooks 15 at its ends but adjacent one end thereof and on its rear edge is provided with the upstanding flange 17 having its upper edge outwardly and downwardly turned as at 18 to provide an attaching lip or hook engaging over the upper edge of the vertical flange 10 of the work supporting shelf and bearing against the rear face of said flange. The flange 17 has a part 18 and 19 pressed outwardly therefrom and downwardly into close parallel relation to the upper surface of the strip 14'. A relatively narrow flange 20 also extends longitudinally from the inner end of the flange 17 along the rear edge of the strip 14' to the other end of said strip, the said flange bearing closely against the face of the flange 10 of the supporting shelf. However, if desired this narrow vertical flange 20 may be omitted. The operation of this form of the attachment is the same as that above described, and as the marginal edge portion of the flexible material is moved over the surface of the strip 14', as it approaches the gluing disc or roller, it is confined closely by the part 19 of the strip so as to prevent flexing or buckling of the edge of the sheet.

From the foregoing description considered in connection with the accompanying drawing, the construction, manner of use and several advantages of the described embodiments of my invention will be clearly understood. It will be seen that the device is exceedingly simple, may be produced at very low cost, and is a valuable accessory for such gluing machines, since it enables the same to operate with equal accuracy and facility upon either stiff or flexible materials, thereby increasing the utility of the machine.

While I have herein disclosed several simple and practical embodiments of my improved attachment, it will nevertheless be understood that the device may also be produced in various other alternative forms, and I therefore, reserve the privilege of resorting to all such legitimate changes therein as may be fairly embodied within the spirit and scope of the invention as claimed.

I claim:

1. In combination with a machine having a work supporting shelf and means at one end of said shelf to operate upon the work, a work guiding attachment consisting of a member provided with means cooperating with the shelf to detachably retain said attachment in fixed relation thereto, and said attachment also including means for guiding the marginal edge portion of a flexible sheet of material and preventing buckling or flexing of the edge of said material as it is fed

to the work engaging means of the machine.

2. In combination with a machine having a work supporting shelf and work engaging means at one end of said shelf, a work-guiding attachment consisting of a sheet metal plate adapted to be superimposed upon said shelf and having means for detachably retaining said attachment in fixed relation to the shelf, and said sheet metal plate being provided at one edge thereof with a guiding flange extending over the surface of said plate in close parallel relation thereto to guide the marginal edge of a flexible sheet of material movable between said plate and the flange and prevent flexing or buckling of the edge of said sheet as it is fed to the work-engaging means of the machine.

3. In combination with a machine having a work supporting shelf and work engaging means at one end of said shelf, a work-guiding attachment consisting of a sheet metal plate adapted to be superimposed upon said shelf, said plate having a bent portion forming an attaching hook to releasably engage a wall of said shelf and detachably retain the attachment in fixed relation thereto, and said sheet metal plate being further provided with a longitudinally extending flange integral with one edge of said plate and bent inwardly and downwardly in spaced parallel relation to the upper surface of said plate whereby the marginal edge of a sheet of flexible material is movably confined between said flange and the plate and prevented from flexing or buckling as said sheet is fed to the work engaging means of the machine.

4. In combination with a machine having a work supporting shelf and work engaging means at one end of said shelf, a work guiding attachment consisting of a sheet metal plate adapted to be superimposed upon said shelf, said sheet metal plate extending the entire length of the work supporting shelf and having inwardly turned hooks at its opposite ends engaging under the ends of the shelf wall to detachably retain said plate in fixed relation to the shelf, and said plate adjacent one end thereof having a flange integrally formed with one of its longitudinal edges extending along the same in close parallel relation with the upper surface of said plate to movably confine the marginal edge of a flexible sheet of material between said flange and the plate and prevent flexing or buckling of the edge of the sheet as it is fed to the work engaging means of the machine.

5. A work supporting and guiding device comprising a sheet metal plate adapted to be superimposed upon a fixed support and having an integrally formed part to coact with the support and detachably retain said plate in its applied position thereon, and a work guiding flange projecting inwardly from one longitudinal edge of said plate in closely spaced parallel relation to the surface of the

plate to confine the edge of a flexible work sheet upon said surface and prevent flexing or buckling thereof.

6. A work supporting and guiding device comprising a sheet metal plate adapted to be superimposed upon a fixed support, said plate having an upstanding flange along one of its longitudinal edges constituting an abutment for one edge of a flexible work sheet positioned on said plate, said flange at one end of the plate having a part struck outwardly therefrom and overlying the upper surface of said plate in closely spaced parallel relation thereto to confine the edge of the work sheet upon said plate and prevent flexing or buckling thereof, and said upstanding flange being further provided with means to releasably engage a part of the fixed support and detachably retain the sheet metal plate thereon.

In testimony that I claim the foregoing as my invention, I have signed my name hereto.

CHARLES L'ENFANT.