

(No Model.)

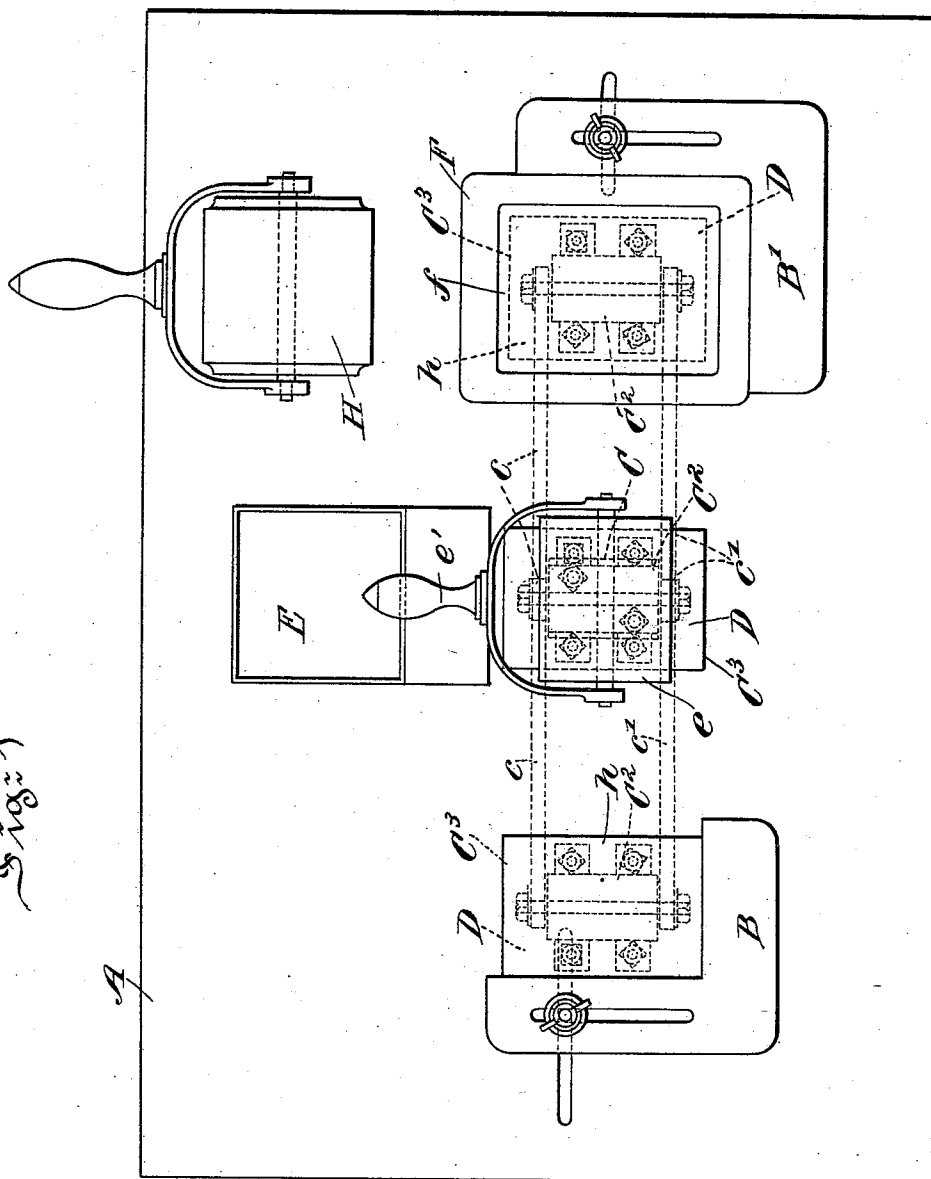
3 Sheets—Sheet 1.

S. H. STINSON.

APPARATUS FOR APPLYING SHEETS TO PHOTOGRAPHIC CARDBOARD.

No. 543,064.

Patented July 23, 1895.



Witnesses:
Richard C. Maxwell.
Louis Winterberger.

Inventor,
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By J. Walter Douglass
attorney.

(No Model.)

3 Sheets—Sheet 2.

S. H. STINSON.

APPARATUS FOR APPLYING SHEETS TO PHOTOGRAPHIC CARDBOARD.

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Fig. 3

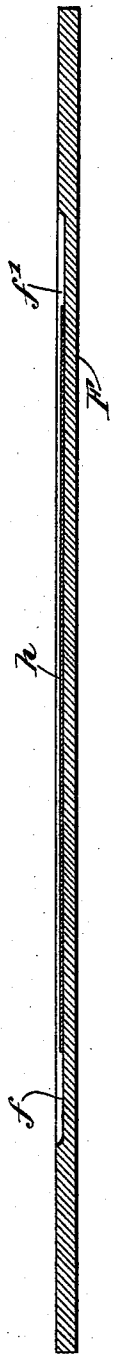
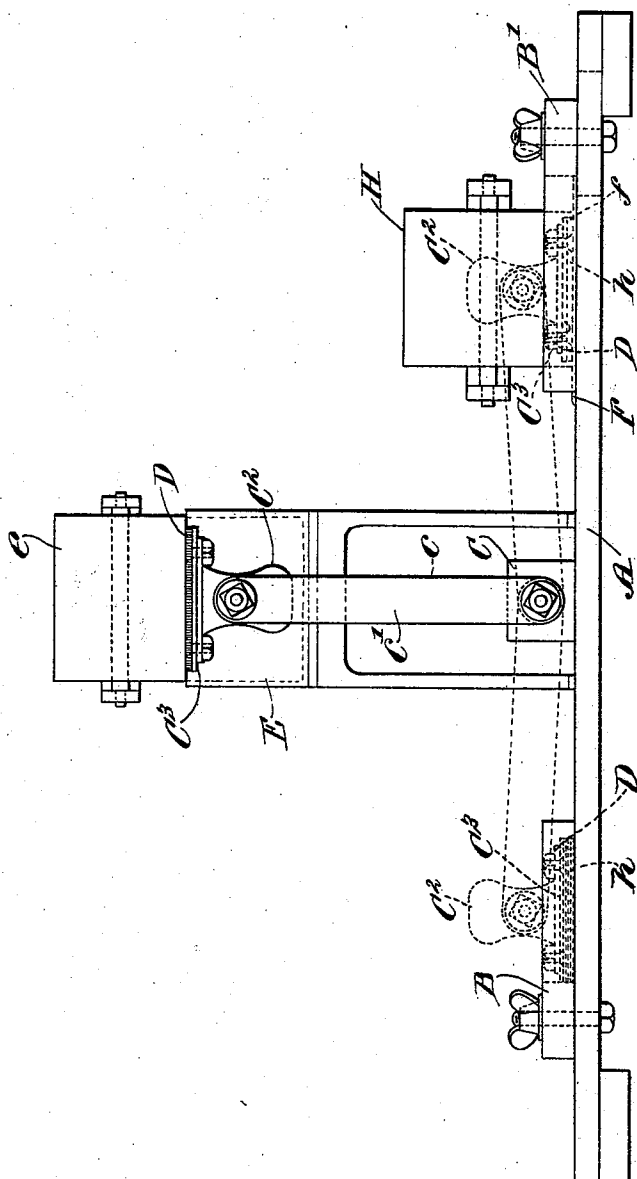


Fig. 2



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(No Model.)

3 Sheets—Sheet 3.

S. H. STINSON.

APPARATUS FOR APPLYING SHEETS TO PHOTOGRAPHIC CARDBOARD.

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Fig. 5

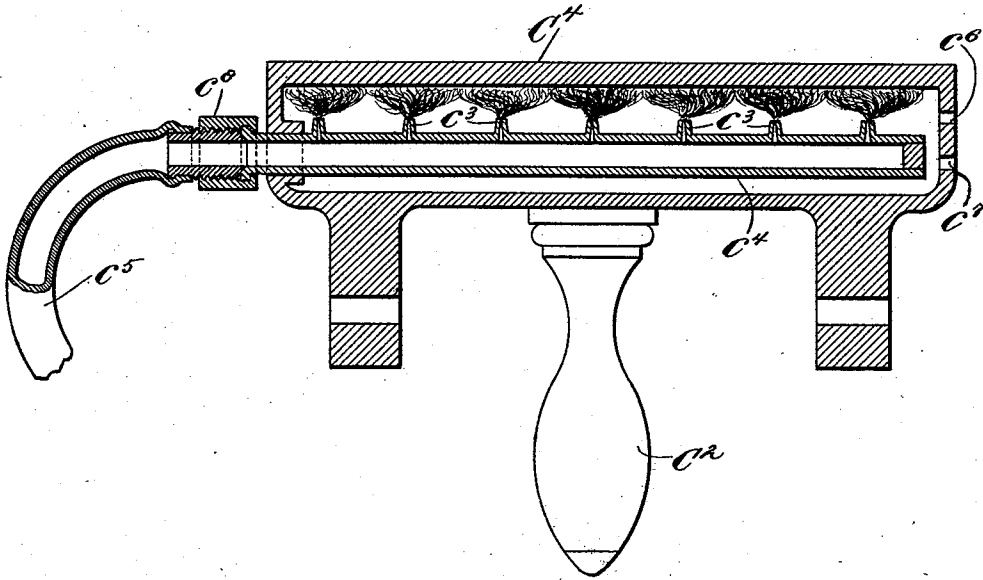
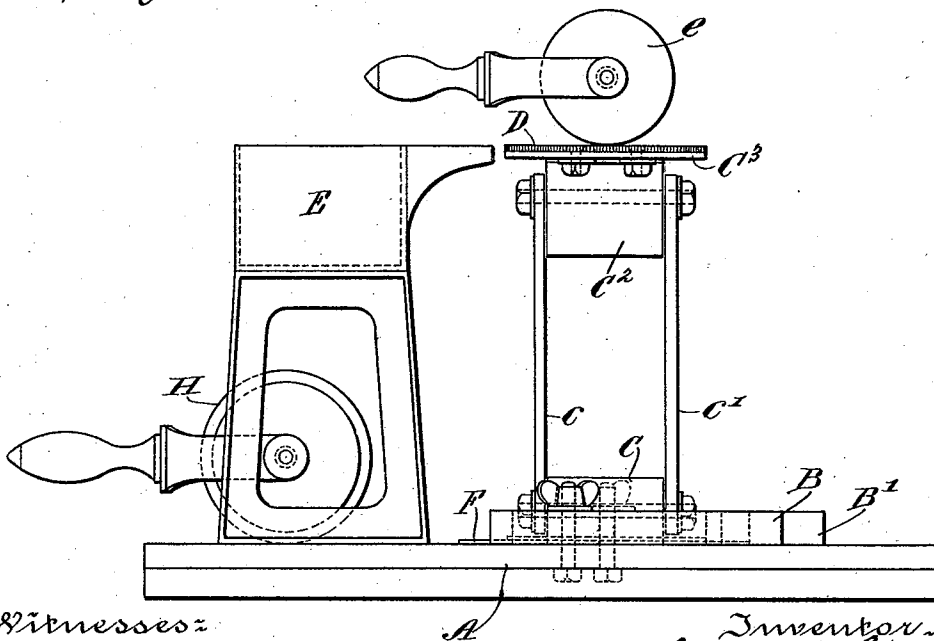


Fig. 4



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UNITED STATES PATENT OFFICE.

SAMUEL H. STINSON, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO THE
A. M. COLLINS MANUFACTURING COMPANY, OF SAME PLACE.

APPARATUS FOR APPLYING SHEETS TO PHOTOGRAPHIC CARDBOARD.

SPECIFICATION forming part of Letters Patent No. 543,064, dated July 23, 1895.

Application filed April 8, 1895. Serial No. 544,974. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL H. STINSON, a citizen of the United States, residing at the city of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Apparatus for Applying Sheets to Photographic Cardboard, of which the following is a specification.

My invention has relation to apparatus for applying sheets of paper or the like to indented cardboard so as to receive thereon a photographic illustration, print, or picture.

The principal object of my invention is to provide a simple and efficient apparatus for expeditiously applying a sheet of paper to photographic indented cardboard, known in the art as "insert" work.

My invention, stated in general terms, consists of an apparatus for applying a sheet of paper to a photograph-indented surface by first subjecting the sheet to moisture, elevating the sheet into the path of paste or glue to coat one surface thereof, applying the coated sheet to the cardboard, and fixing the same thereto in a smooth condition; and my invention further consists of an apparatus constructed and arranged in substantially the manner hereinafter described and claimed.

The nature and general features of my invention will be more fully understood from the following description, taken in connection with the accompanying drawings, forming part hereof, in which—

Figure 1 is a top or plan view of one form of an apparatus embodying features of my invention for carrying the mode of applying sheets to photograph-cardboard, also of my invention, into effect, showing in dotted lines the positions of the sucker or plunger adapted to lift by adhesion the sheets and for applying the same to the cardboard. Fig. 2 is a similar view showing the sucker or plunger in engagement with the moist sheets of paper and adapted by adhesion to lift each one of the mass thereof into a position to receive a coat of paste or glue on one surface thereof, and also showing a front end view of the smoothing-roller, and in dotted lines at one end portion the sucker or plunger in contact

with a mass of moistened sheets, and at the other end portion of a table or support the said sucker or plunger in contact with the indented portion of the cardboard for applying the insert-sheet thereto. Fig. 3 is a transverse sectional view through cardboard, showing the sheet applied to the indented portion thereof. Fig. 4 is a side elevational view of the coating vat or tank with the roller for applying uniformly glue or paste to one face of a sheet lifted by the sucker or plunger manually or otherwise manipulated; and Fig. 5 is a modified form of sucker or plunger, consisting of a hollow oblong chamber adapted to be heated and presented to a moistened or dry sheet held in a frame or guide to lift the same by adhesion, so as to present a surface in the path of glue or paste to be coated for application to an indented cardboard sheet.

Referring to the drawings, A represents a platform, table, or support provided with adjustable frames B and B', one to receive the cardboard and the other the moistened or dry sheets of paper. Interposed between these frames is located a block C, and movably connected therewith by means of a pivot are two arms c and c', carrying a pivotal handle C², provided with a rectangular shape sucker-plate or plunger C³, of metal, preferably coated on the face with rubber or other suitable material D, or this sucker-plate or plunger may consist of a hollow oblong chamber C⁴, provided with air-vents c⁶ and c⁷ in one end wall thereof. On the interior is provided jet-burners c⁸, which are connected with a gas-pipe c⁴, extending beyond one of the walls thereof and having a hose c⁵, by means of a coupling c⁸, connected therewith from a suitable source of supply, as clearly illustrated in Fig. 5. In the form of plunger or sucker-plate illustrated in Fig. 5 the face is preferably made of steel, so as to offer when heated by said jets the necessary adhesive surface to suck up sheets when a slight pressure is exerted against the same. In other respects the said sucker-plate or plunger is the same in construction and arrangement as that shown in Figs. 1 and 2 of the drawings for lifting a sheet of paper into a position to receive from a bath E, located adjacent to the

vertical position of said sucker-plate or plunger, a coat of paste or glue on one face of the same.

e is a traveler paste-roll provided with a handle for manipulating said roll over one surface of the lifted sheet of the sucker-plate or plunger *D*, when the latter is so manipulated by hand as to permit of the application of the sheet with the coated face to the indented face of the cardboard *F*, held in the adjustable frame *B'*, adapted therefor, and by a slight pressure exerted on the inserted sheet the same is readily applied to position at a uniform distance from the edge of the indented face *f*, forming a wall or raised surface *f'* all around the indented portion of the cardboard, and when the sucker-plate or plunger *D* is released a roll *H* is passed transversely of the table *A* over the sheet *h*, in order to bring the same into a smooth condition, when the cardboard may be then released from the holder or guide *B'* to dry in any suitable manner and so as to receive by printing or otherwise the photograph thereon, as desired.

It may be here remarked that it is preferred to employ a finishing and smoothing roll *H*, such as illustrated in Fig. 1, with recessed end portions, so as to permit the working surface of the roll to pass completely over the inserted sheet on the cardboard *F*. It may be here further remarked that hitherto it has been customary to apply sheets of paper to cardboard, such as illustrated in Fig. 3, by hand, but the greatest difficulty has been to uniformly apply the same without crinkling or soiling the surface of the inserted sheet; and my invention has been designed to overcome such difficulties and serious objections experienced in the past and to provide a mode of applying sheets to the photographic indented cardboard in preferably a moist condition quickly, smoothly, and uniformly and without soiling the face or of the paste applied to the back side of the sheet oozing out when applied to the cardboard.

It is to be understood that by moistening the papersheets the adhesion between the sucker-plate and the paper is thereby increased and that by heating the sucker-plate the degree of adhesion between the dry paper and the sucker-plate may likewise be increased. The heating of the plate will serve to increase the adhesion between the same and the dry paper, or the contact of a heated plate with the dry paper will be much closer than can be obtained when the plate is not heated and this closer contact will necessarily result in greater adhesion between the paper and plate.

Having thus described the nature and objects of my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. An apparatus for applying a sheet of

paper to card-board, comprising a table or support having a frame wherein moistened paper is confined and a frame for receiving the card-board, arms pivotally connected with the table or support midway between the paper and card-board frames, a flat faced sucker-plate or plunger pivotally connected with the free ends of said arms in such a manner as to permit the revolution of the plate about its pivot, said plate adapted to rest in one position flatly upon a sheet of moistened paper to permit of its adherence to said plate, and so as to afford transfer of said sheet to the other position of said plate in which the plate rests flatly upon the card-board and deposits the sheet in a flat condition upon the card-board, substantially as and for the purposes described.

2. An apparatus for applying a sheet of paper to card-board, comprising a table or support having a frame wherein the paper is confined and a frame for receiving the card-board, arms pivotally connected at one end to said table midway between the paper and card-board frames, a flat faced sucker-plate or plunger pivotally connected with the free ends of said arms, means for heating the face of said plate or plunger, said heated plate adapted to rest in one position flatly upon a sheet of paper and to cause the same to adhere to the plate, and to transfer the paper to the other position of the plate in which the same rests flatly upon the card-board, whereby the paper is deposited in flat condition upon the card-board, substantially as and for the purposes described.

3. In an apparatus of the character described, a table provided with frames to receive paper and card-board, arms pivoted to the table midway between said frames, a flat faced sucker-plate pivoted in the free ends of said arms in such a manner as to permit the revolution of the plate about its pivot, said plate having three defined positions controlled by said arms and pivotal connections, the plate in one position adapted to rest face downward upon a sheet of paper and lift the same by adhesion, in the second position adapted to rest face upward to permit the sheet of paper to be gummed and in the third position with the gummed face of the paper downward upon a sheet of card-board upon which the paper is deposited and secured in flat condition thereon, substantially as and for the purposes described.

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

SAMUEL H. STINSON.

Witnesses:

J. WALTER DOUGLASS,
GEO. W. REED.