UNITED STATES PATENT OFFICE.

SAMUEL J. MURRAY, OF INDIANAPOLIS, INDIANA, ASSIGNOR TO THE UNITED STATES PRINTING COMPANY, OF CINCINNATI, OHIO.

PROCESS OF PRINTING PLAYING-CARDS.

SPECIFICATION forming part of Letters Patent No. 548,579, dated October 22, 1895.

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To all whom it may concern:

Be it known that I, SAMUEL J. MURRAY, a resident of Indianapolis, Marion county, and State of Indiana, have invented an Improved 5 Process of Printing Playing-Cards, of which the following is a specification.

My invention relates to printing playingcards, and has for its object to produce playing-cards from paper in the roll in a rapid

o and economical manner.

Hitherto it has been customary to print playing-cards upon sheets of cardboard, from which the individual cards were afterward punched. This process required many manipulations of the sheet; and my invention is designed to obviate the disadvantages incident to such manipulations.

To this end my invention consists in the method or process of printing playing-cards from the roll in contradistinction to sheet-printing, as will be hereinafter fully described and set forth, and more particularly

pointed out in the claims.

In general terms, my process consists, 25 broadly, of the following: first, printing the designs for one side of the cards, usually the faces, upon a continuous web; secondly, in pasting upon the unprinted side of the web thus printed a plain or unprinted web, then 30 finishing the cards in any suitable manner, such as by printing on the unprinted side of this pasted web designs for the other side of the cards, which in this case will be the back of the cards, and cutting out the individual 35 cards.

This process is capable of many variations and mutations; and to this end I will describe specifically and in detail the process as employed by me, it being expressly understood that such description is merely for the purpose of giving one complete process, and I desire it to be understood that I in no sense limit myself to the specific process.

I first take a roll of paper-stock, which may
be previously enameled and dampened, if desired, and on this roll I print in one continuous web on one side the designs for the cardfaces. From the press the web passes into suitable drying apparatus, which dries the printing-ink. The web is then reeled into a

roll again. On the unprinted side of this printed web is next pasted by any suitable means, such as by a pasting-machine, an unprinted web, or, if desired, a plurality of unprinted webs superposed. This unprinted 55 web may, if desired, be enameled upon the side which is to receive the printing. This pasted web is then dried in any suitable manner, and after it has become dried the designs for the card-backs are printed on the 60 unprinted side of the pasted web. This web may be sized, cut into sheets, finished by waterproofing, powdering, brushing, and plating, or in any other suitable manner, and the $individual\, cards\, stamped\, or\, otherwise\, cut\, out. \ \, 65$ It may be found expedient to crush the pasted web after drying and before printing to give it a printing surface.

In case the backs of the cards are not to be printed the back of the pasted web may be 75 finished without printing, as by enameling or

the like.

It is evident that a web or webs may be interposed between the face-webs hereinabove described without departing from the spirit 75 of my invention.

What I claim herein, and desire to secure

by Letters Patent, is—

1. The process of printing playing cards which consists in printing the designs for one 80 side of the playing cards upon a continuous web, then pasting a plain web on the unprinted side of said printed web, drying the pasted and united webs, and thereupon finishing the unprinted side of the pasted web, as 85 described.

2. The process of printing playing cards which consists in printing the designs for the faces of the playing cards upon a continuous web, then pasting a plain web to the unprinted side of said printed web, drying the pasted and united webs, and thereupon finishing the unprinted side in any suitable manner.

3. The process of printing playing cards 95 which consists in printing the designs for the faces of the cards upon a continuous web, then pasting a plain web to the unprinted side of said printed web, drying the pasted and united webs, and thereupon printing the backs of 100

the playing cards upon the plain side of the pasted web, substantially as described.

4. The process of printing playing cards which consists in printing the designs for one 5 side of the cards upon a continuous web, then pasting a plain continuous web to said printed web upon its unprinted side, drying the pasted webs, cutting said pasted webs into sheets, and finishing the unprinted side of to each sheet, substantially as described.

5. The process of printing playing cards which consists in printing the designs for the faces of the cards upon a continuous web, pasting a plain continuous web to the unprinted side of the printed web, drying the pasted web, cutting said pasted web into

sheets, and finishing the back of each sheet, substantially as described.

6. The process of printing playing cards which consists in printing the designs for the 20 faces of the cards upon a continuous web, pasting a plain continuous web to the printed web upon its unprinted side, drying the pasted web, cutting said pasted web into sheets, and thereupon printing the backs of 25 the cards upon said sheets, substantially as described.

SAMUEL J. MURRAY.

Witnesses:

FREDERICK HORMAN, EDW. B. HUNT.