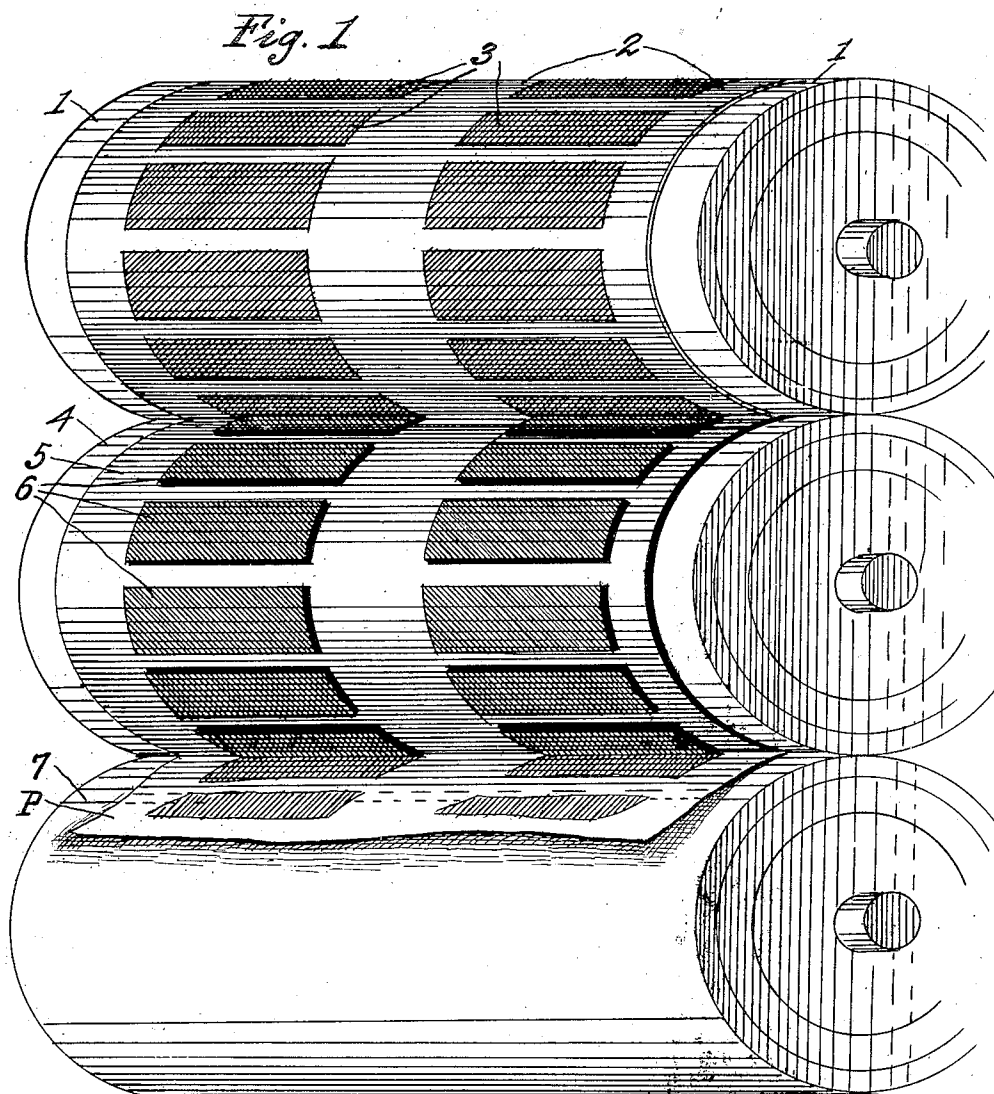


C. P. MEZGER.
PRINTING DEVICE.
APPLICATION FILED NOV. 17, 1921.

1,428,795.

Patented Sept. 12, 1922.
2 SHEETS—SHEET 1.



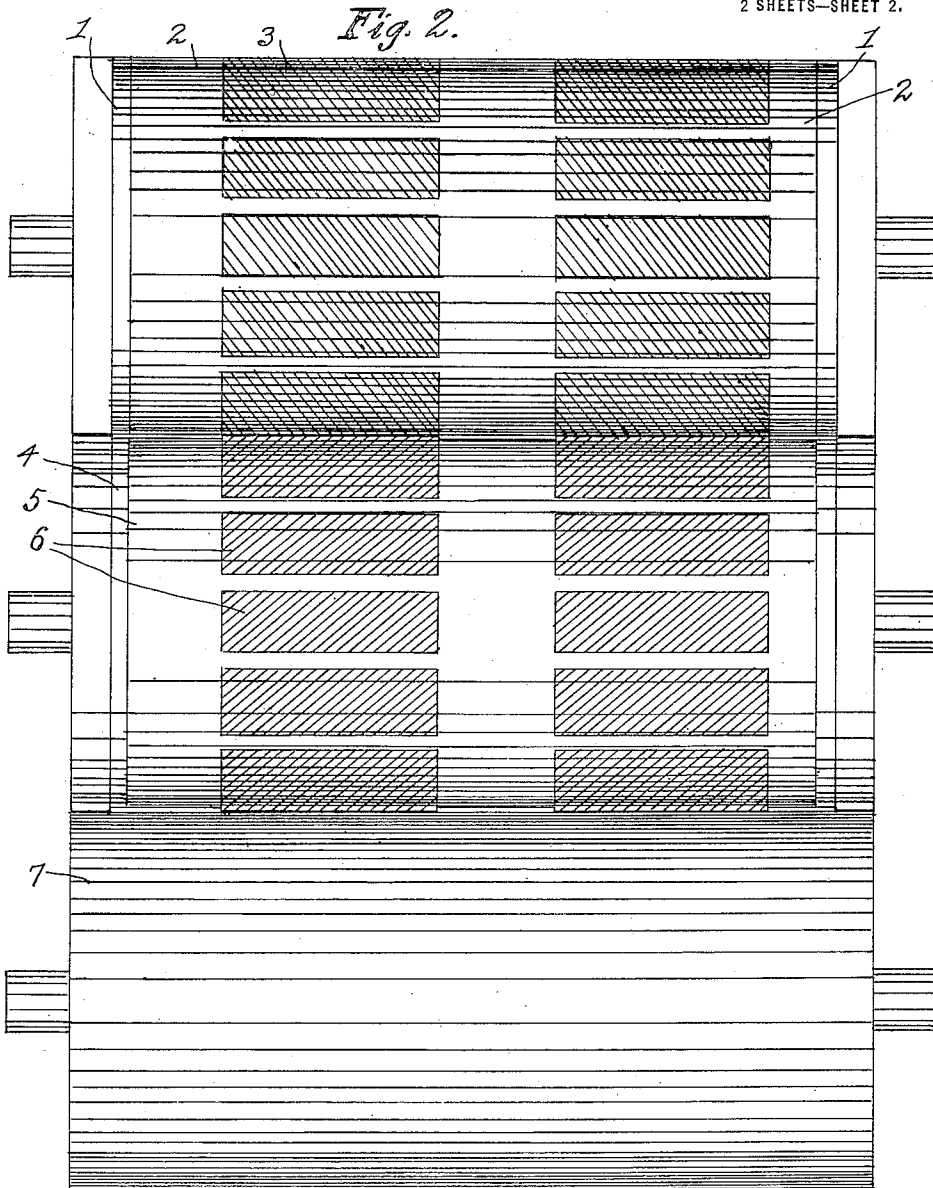
C. P. MEZGER,
Inventor.

Sterling P. Buck,
Attorney.

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UNITED STATES PATENT OFFICE.

CHARLES P. MEZGER, OF GLENBURNIE, MARYLAND.

PRINTING DEVICE.

Application filed November 17, 1921. Serial No. 515,947.

To all whom it may concern:

Be it known that I, CHARLES P. MEZGER, a citizen of the United States, residing at Glenburnie, in the county of Anne Arundel and State of Maryland, have invented certain new and useful Improvements in Printing Devices, of which the following is a specification.

This invention relates to printing devices, and more specifically to an improved device for producing lithographic impressions on bank-checks and the like, by a process known as "dry lithographing."

The main object of the invention is to provide an improved printing device for producing, with an offset printing press and safety ink, a more perfectly outlined or precisely defined impression than that which is produced by devices or methods known or used prior to my invention.

A further object is to provide a device of this character which reproduces, or transfers from the relief design to the paper or impression receiving object, an impression which is exactly the size and shape as that of said design and eliminates ink-stains beyond the said impression.

Other objects and advantages will be pointed out or implied in the following description, in connection with the accompanying drawings in which:

Fig. 1 is a perspective view illustrating my invention in connection with a sheet of paper being printed thereby.

Fig. 2 is a front elevation of my improved printing device.

Referring to these drawings in detail, in which similar reference characters correspond with similar parts throughout the several views; the invention consists in the construction and arrangement of parts which will now be fully described as follows:

A plate-cylinder is indicated at 1, and at 2 is indicated a plate having images or designs in relief 3 thereon. A blanket-cylinder is indicated at 4, and a blanket 5 is secured thereon and includes raised portions 6. The blanket 5 is of the ordinary or any appropriate construction, except that it includes the raised portions 6 whose upper or outer faces are rubber or the equivalent, these raised portions having abrupt edges, that is, these edges are substantially perpendicular to the printing face and meet

the latter at an angle rather than being curved or convexed.

The pressure-cylinder 7 is disposed under the cylinders 1 and 4, in such close proximity that a sheet of paper, (indicated at P), when passed between the cylinders 4 and 7, receives an impression from the raised portions 6. It should be understood that the images or designs 3 are inked by any appropriate means, and that when they come in contact with the raised portions 6, they transfer the impression from the images 3 to these raised portions 6 in the reversed position, and therefore, when the impressions are transferred from the portions 6 to the paper, they are received by the paper in the correct or original position. It should also be understood that any appropriate means (not shown) may be employed for gearing the cylinders to one another in such manner that the images 3 will always register correctly with the raised portions 6.

It is recognized that the foregoing description does not distinguish from what has been previously known or used, except that the impression-transferring rubber portions 6 are raised above the surrounding surface of the blanket, being thicker than these surrounding portions, and having abrupt edges which form substantially sharp corners at their respective junctions with the faces of these impression-transferring faces or portions. However, this is a vitally important distinction over what has been previously employed in the art of printing in relief or on the offset press. Another important distinction over the ordinary lithographic plate is that the images or designs 3 are somewhat above the general or intervening surface of the plate 2.

Those who are familiar with such printing will understand that dark places, on the stub and margin of a check, result from the spreading of the comparatively thin safety ink; that is, the surplus ink from the printing surfaces being forced by the pressure of the printing cylinders onto the surface beyond that which is intended to receive ink; this spreading of the ink being in consequence of the fact that the printing surface of the blanket is flush or even with the surface which surrounds the part intended to receive the ink from the cylinder 1.

In order to avoid this clouding or discoloring of the stub and margin of the

checks or the like which are printed with safety ink, it has become customary to provide a screen or over all tint on the stub and margin of the check. However, this
5 does not meet the demand for a check having a face printed with safety ink. The present demand is for a check having a face printed with safety ink, and having a perfectly white margin and stub.

10 Referring again to Fig. 1 of the drawings, it will be seen that the outer surfaces of the raised portions 6 are raised sufficiently above the general surface of the blanket 5 to prevent this general or inter-
15 mediate surface from coming into contact with or exerting a pressure on either the cylinder 1 or the paper, and therefore, the ink will not spread beyond the edges of the respective raised portions which transfer
20 the impression from the image to the paper. It is not intended to limit this invention to the exact construction and arrangement of parts as shown and described, but changes may be made within the scope of the inventive idea as implied and claimed. 25

What I claim as my invention, is:
The combination with an offset printing press including a blanket-cylinder and a plate, the latter having thereon a design in relief, of a blanket on said blanket-cylinder, said blanket including a relatively thick impression-transferring portion which has substantially sharp edges defining its outline, this outline being the same size and shape as that of the said design, for the
30 purpose of reproducing an impression which is exactly the size and shape as that of said design and eliminating ink-stains beyond the said impression.

In testimony whereof I, affix my signature.
40

CHARLES P. MEZGER.