

No. 751,782.

PATENTED FEB. 9, 1904.

F. O. CLIMER.
PRINTING PRESS FORM.
APPLICATION FILED APR. 24, 1903.

NO MODEL.

Fig. 1.

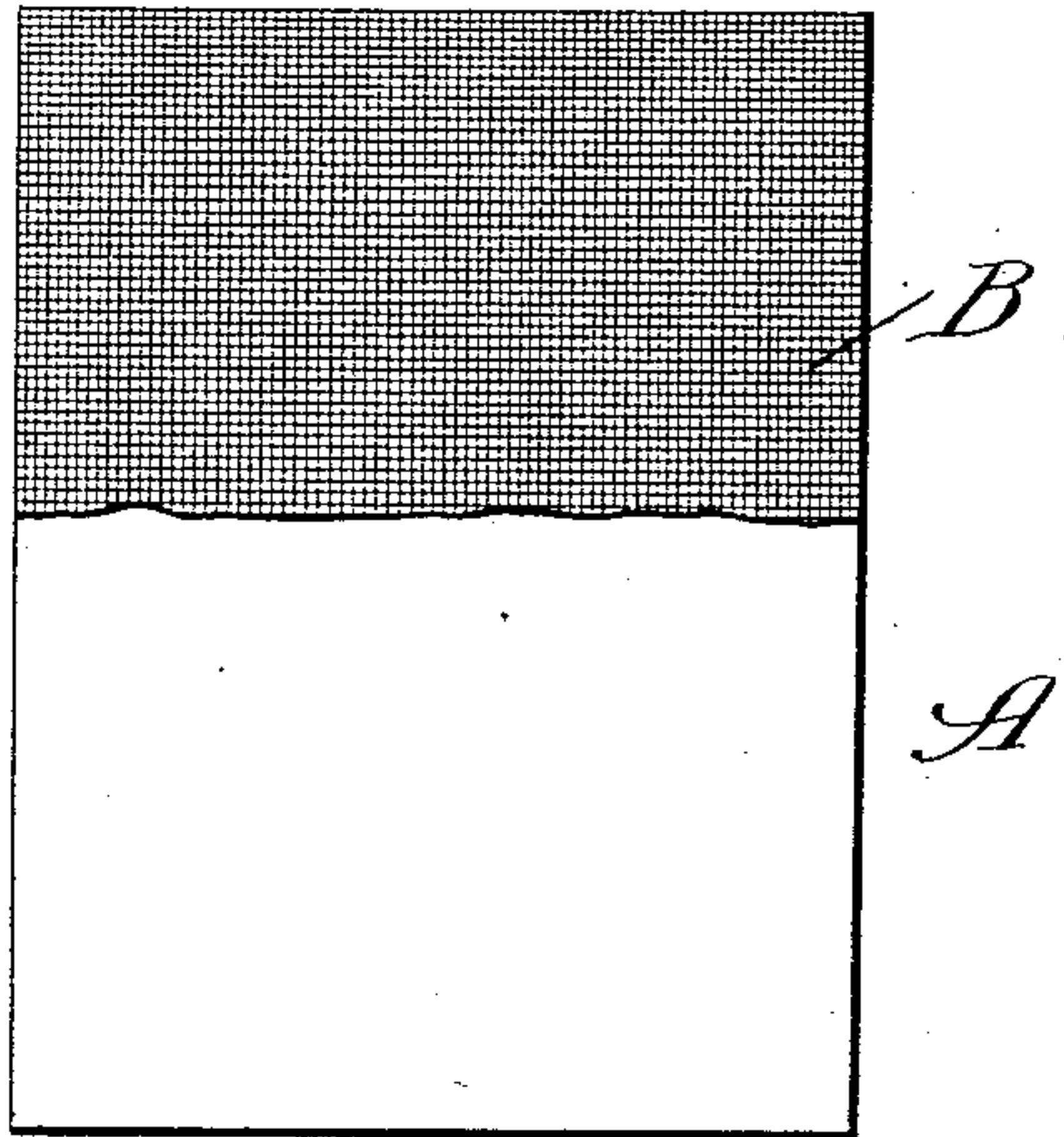


Fig. 2.

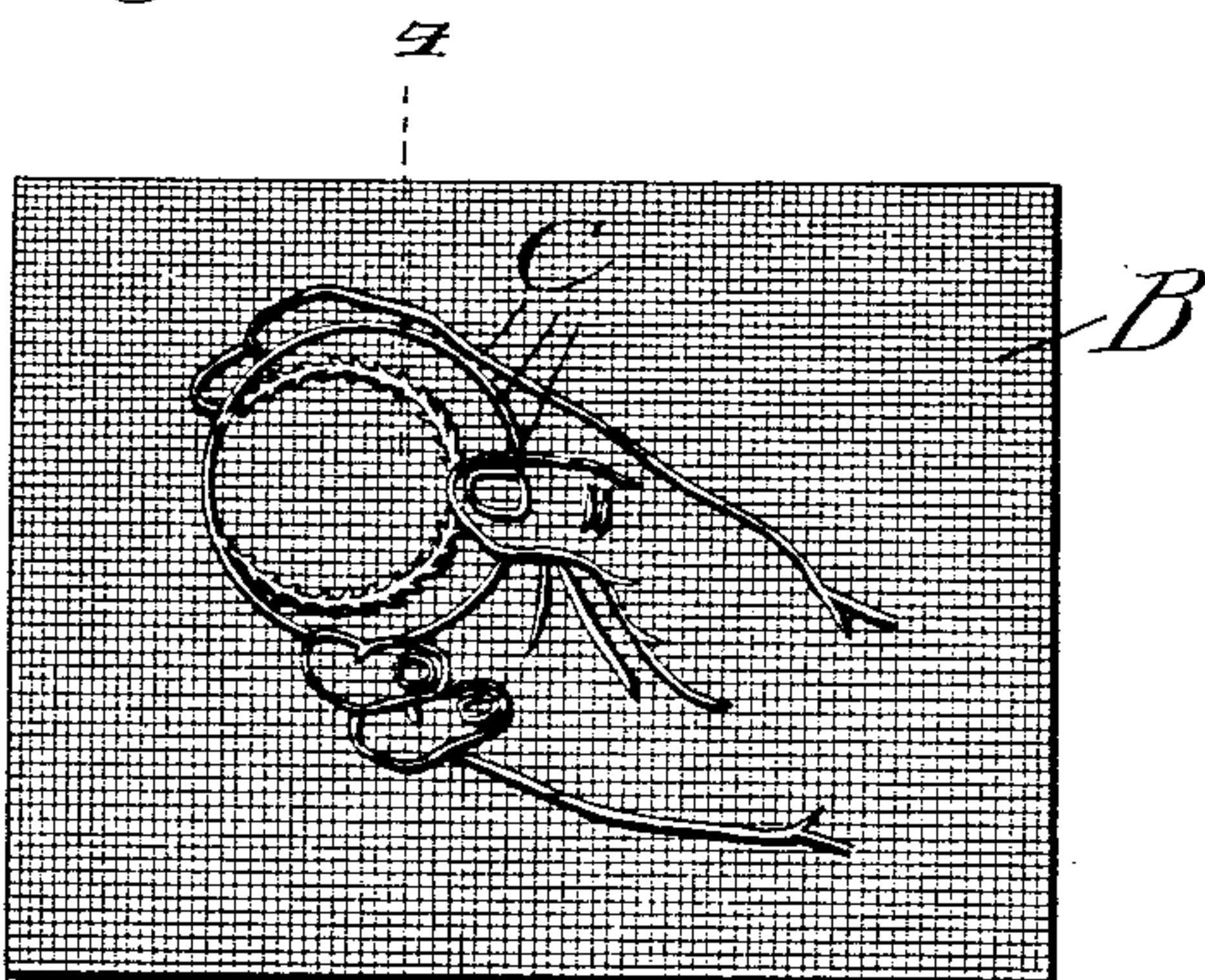


Fig. 3.

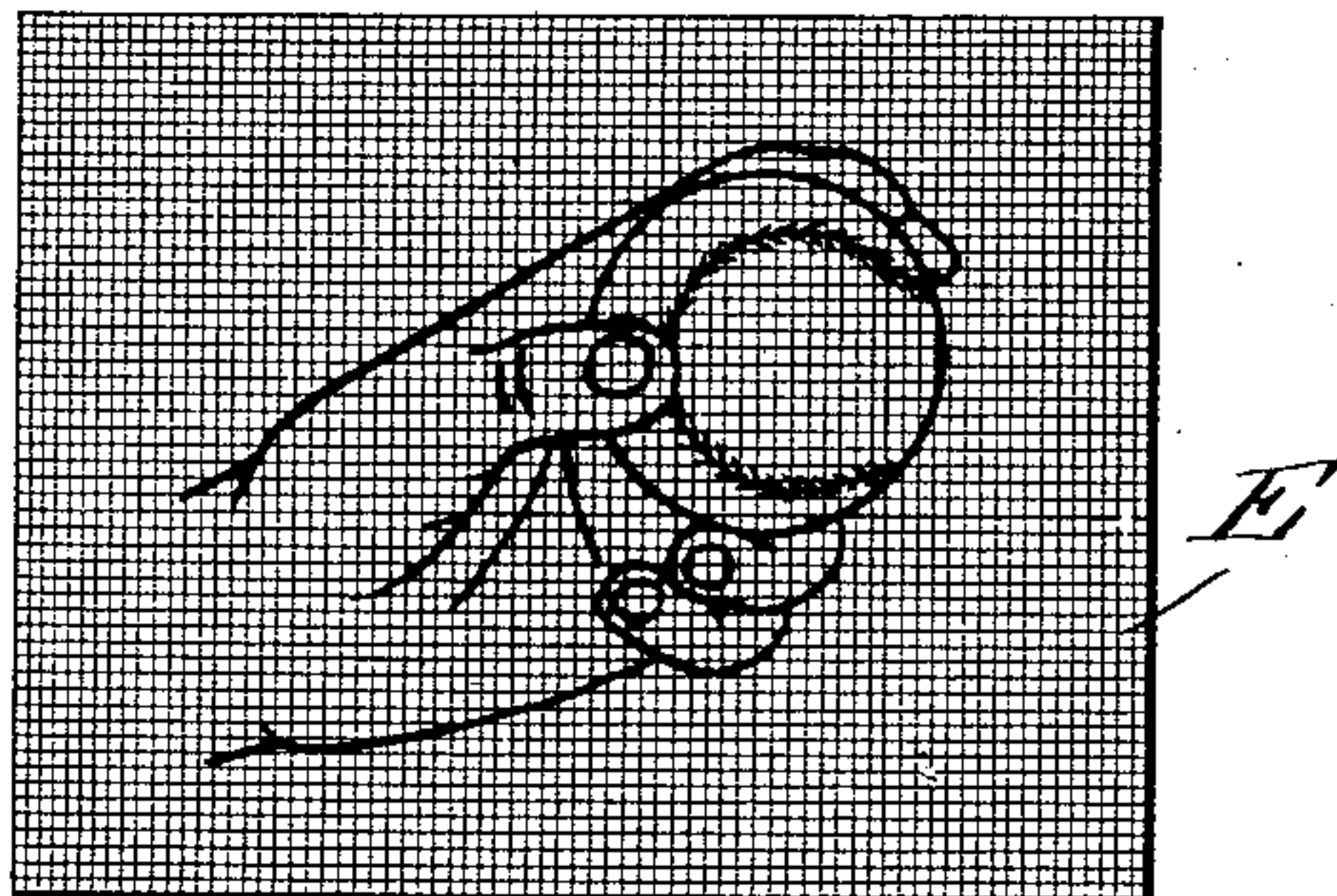
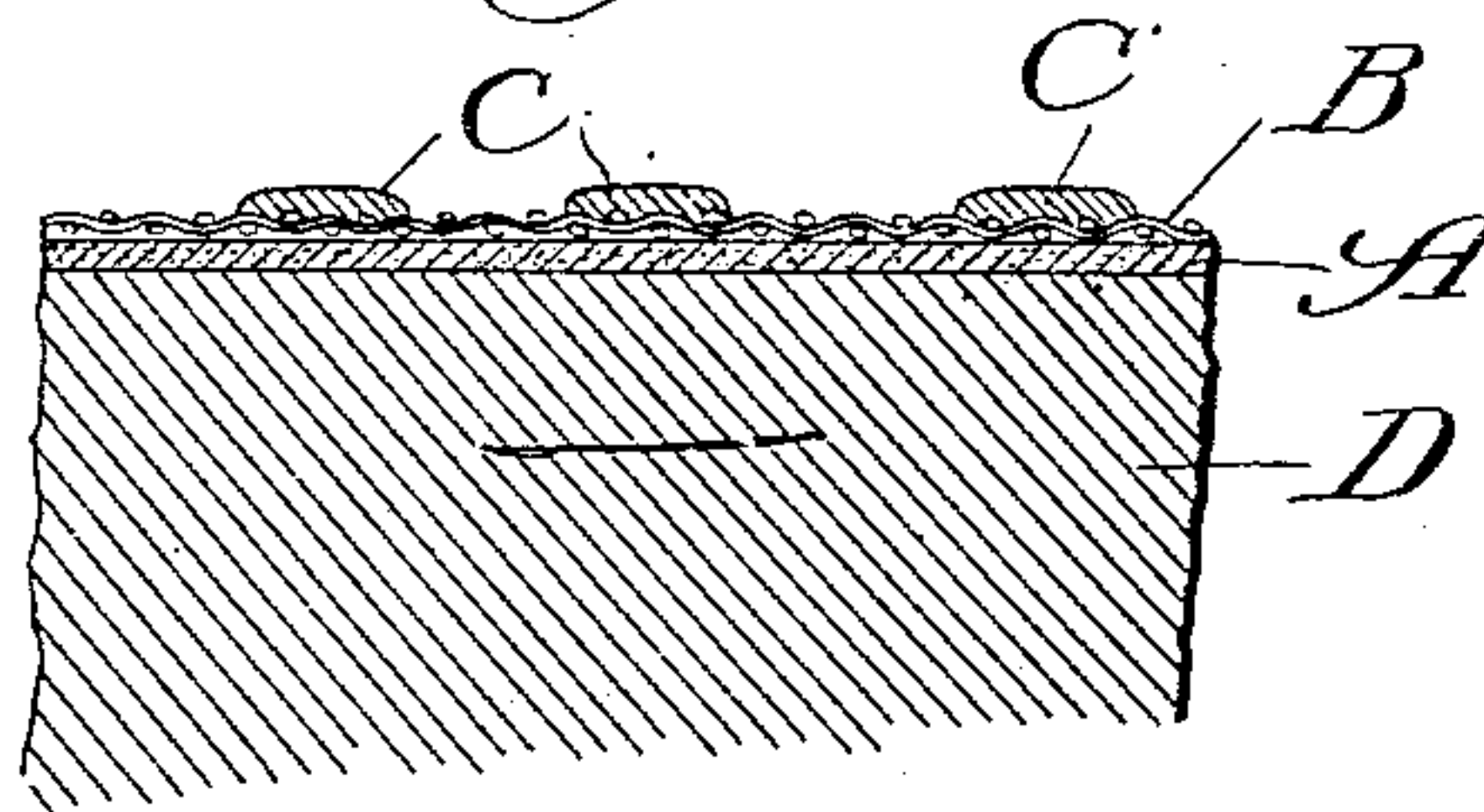


Fig. 4.



Witnesses:
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UNITED STATES PATENT OFFICE.

FRANK O. CLIMER, OF CHICAGO, ILLINOIS.

PRINTING-PRESS FORM.

SPECIFICATION forming part of Letters Patent No. 751,782, dated February 9, 1904.

Application filed April 24, 1903. Serial No. 154,074. (No model.)

To all whom it may concern:

Be it known that I, FRANK O. CLIMER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Printing-Press Forms, of which the following is a specification.

My invention relates to an improvement in the forms from which impressions are taken in the class of printing-presses known as "letter-presses;" and my objects are primarily to facilitate the production of such forms and to greatly cheapen the cost of printing.

To produce my improved form or plate, I employ a film-like sheet of suitably flexible material, preferably paper and transparent, though it may be of other material and is not essentially transparent. On one surface of this sheet I provide with a suitable instrument or otherwise lined or dotted elevations for a background, the lines extending very close together in parallel relation and in one direction or being broken or crossed to afford a mesh. In practice I have used for the lines very fine silk mesh or netting in varying degrees of fineness, according to the character of the work. On the lined surface I provide, as by drawing, (or may trace if the sheet be transparent,) the figure or character to be printed with a fluid, either colorless or colored in any desired tint, which hardens on exposure, but does not shed its substance, as do inks employed for transfer purposes, though the fluid for my purpose may be termed an "ink." As the ink of the variety referred to that most suitable, though not the only one for use with my invention, is the substance known as "water-glass," which flows readily to enter the interstices on the surface of the sheet and deposit thereon in varying thickness, thus to induce the variation in shade on the background. With the ink hardened there is provided on the lined surface of the sheet the character, figure, or the like to be printed in relief, so that when the sheet, mounted on a suitable back, is adjusted in position on the cylinder or bed of a printing-press it affords the form to be inked in the usual or any suitable manner with printers' ink to adapt the configuration in relief on its

surface to be transmitted, with a background, to the surface impressed against it for printing.

Instead of providing lines on the printing-surface I may stipple it, and I intend that stippling or otherwise roughening it shall be included within those of the appended claims wherein the term "lined" is employed for qualifying said surface as an equivalent for lines.

Referring to the accompanying drawings, Figure 1 is a broken face view of the sheet employed in the production of my improved article of printing-form having a sheet of meshed fabric cemented on its surface to produce the lines. Fig. 2 is a face view of the completed form having drawn upon its surface a configuration to be reproduced by printing. Fig. 3 is a view showing a print reproduced from the form illustrated in Fig. 2, and Fig. 4 a broken enlarged section taken at the line 4 on Fig. 2 and viewed in either direction from the line.

In the drawings, A denotes a film of transparent paper, shown of rectangular shape, though its shape and dimensions may be as desired. One surface of the film has lines produced upon it by means of a mesh B, of silk fabric, cemented to the film-surface. The degree of fineness of the mesh may vary in accordance with the character of the work.

C is a configuration traced on the lined surface of the film with water-glass hardened by exposure and standing out in relief. In tracing the configuration C some of the ink afforded by the water-glass is introduced by flowing into and hardening in the interstices of the mesh adjacent to the lines of the configuration, entirely filling the interstices if the ink be thick or if it be of a thin quality only adhering to the sides of the lines of the mesh and thickening there without entirely filling the interstices, thus affording variation in the shading produced on the background.

D is a back, of wood or other suitable material, upon which the lined film A, bearing the configuration is secured, as by cementing.

To use my improved form for producing prints E, Fig. 3, it is adjusted in the usual or any suitable manner on the cylinder or bed of a printing-press and inked to apply the

printers' ink to the lines of the configuration C and more lightly to the lined or stippled surface of the film, and impressions are then taken from the form in the ordinary manner
5 of printing.

What I claim as new, and desire to secure by Letters Patent, is—

1. As a new article of manufacture, a printing-press form comprising a film of flexible
10 material having a lined surface and provided thereon with a character or configuration in relief formed of hardened non-shedding ink.

2. As a new article of manufacture, a printing-press form comprising a film of flexible
15 material having a lined surface and provided thereon with a character or configuration in relief formed of water-glass.

3. As a new article of manufacture, a printing-press form comprising a film of flexible
20 transparent material having a lined surface and provided thereon with a character or configuration in relief formed of hardened non-shedding ink.

4. As a new article of manufacture, a printing-press form comprising a film of transparent flexible material having a lined surface
25 and provided thereon with a character or configuration in relief formed of water-glass.

5. As a new article of manufacture, a printing-press form comprising a film of flexible
30 material having a sheet of fabric mesh cemented to its surface and provided on said surface with a character or configuration in relief formed of hardened non-shedding ink.

6. As a new article of manufacture, a printing-press form comprising a film of transparent flexible material having a sheet of fabric mesh cemented to its surface and provided on
35 said surface with a character or configuration in relief formed of hardened non-shedding ink. 40

7. As a new article of manufacture, a printing-press form comprising a film of flexible material having a sheet of fabric mesh cemented to its surface and provided on said
45 surface with a character or configuration in relief formed of water-glass.

8. As a new article of manufacture, a printing-press form comprising a paper film having a fabric mesh cemented to its surface and provided on said surface with a character or
50 configuration in relief formed of water-glass.

FRANK O. CLIMER.

In presence of—

WALTER N. WINBERG,
W. B. DAVIES.