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M. DETHLEFFS.

PROCESS OF PREPARING MAKE READIES OR OVERLAYS FOR PRINTING PRESSES.

(Application filed Sept. 13, 1901.)

(No Model.)

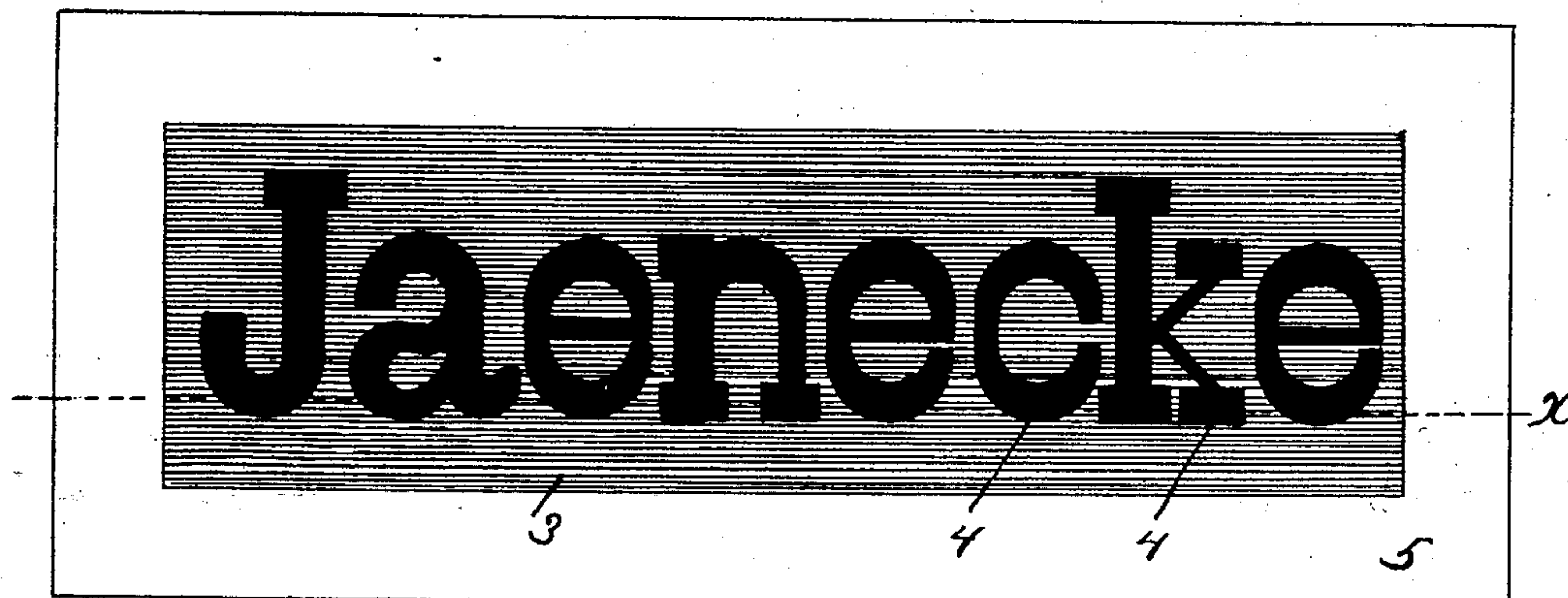


Fig. 1.

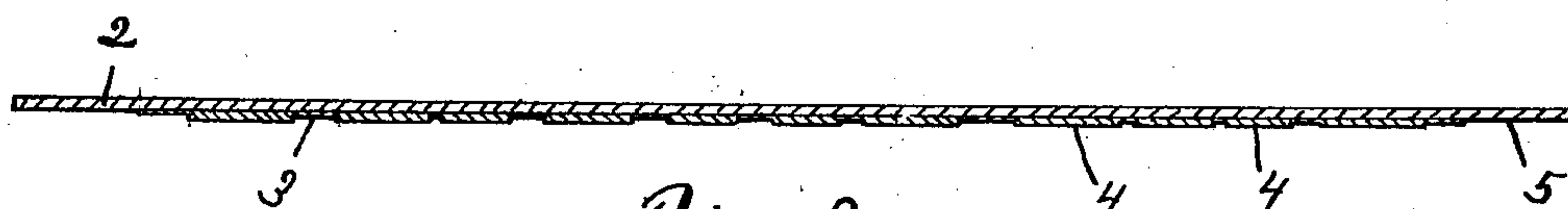


Fig. 2.

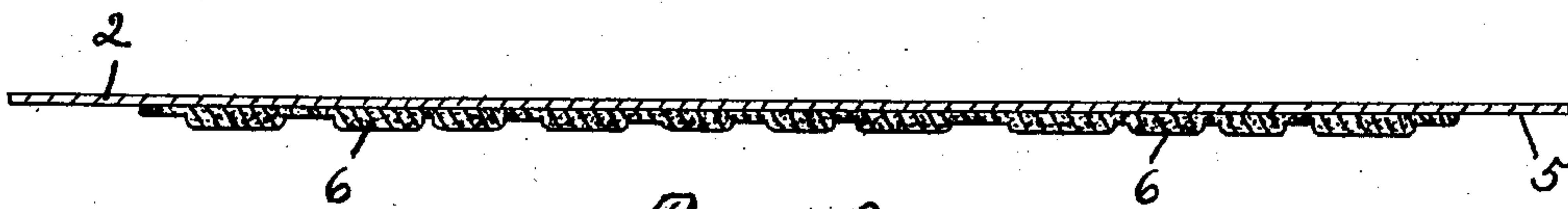


Fig. 3.

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MAX DETHLEFFS, OF STUTTGART, GERMANY.

PROCESS OF PREPARING MAKE-READIES OR OVERLAYS FOR PRINTING-PRESSES.

SPECIFICATION forming part of Letters Patent No. 715,561, dated December 9, 1902.

Application filed September 13, 1901. Serial No. 75,266. (No specimens.)

To all whom it may concern:

Be it known that I, MAX DETHLEFFS, a subject of the Emperor of Germany, residing at Stuttgart, Germany, have invented certain new and useful Improvements in Processes of Preparing Make-Readies or Overlays for Printing-Presses; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to characters of reference marked thereon, which form a part of this specification.

This invention relates to the art or process of producing what is known as a "make-ready" or "overlay" by employing proof or impression of the printing-plate and applying to such proof or impression a powder, whereby the surface of such proof or impression is raised to a hardened high relief, so that subsequent impressions of the plate will be strong in artistic qualities, the relief parts having soft disappearing edges or transmissions of ink or color.

Referring to the accompanying drawings, in which like characters of reference indicate corresponding parts in each of the several figures, Figure 1 illustrates a finished overlay. Fig. 2 is a section through the foundation-sheet, as on line x , Fig. 1, and showing in exaggeration the disposition of the gum-like ink thereon; and Fig. 3 is a similar sectional view after the powder has been applied.

The powder I employ in carrying my process into effect consists of about one hundred parts of best shellac and five to ten parts of pure gutta-percha. These are melted together. Before cooling the melted mass is placed in a closed vessel and subjected to a pressure, such as hydraulic, of, say, seventy-five pounds. Afterward the whole mass of pressed substance is ground to a fine even powder. The powder so produced is then placed in a dish or trough. A proof or impression is next made upon a non-absorbent paper or sheet, such as the paper sometimes known as "Dermatoid" or "celluloid" paper. The proof or impression upon the paper is in sticky or gum-like or resin-containing ink. The best is a composition of printers' varnish, one part, by weight; mastic, one part, and

elemi gum or rosin, three parts. The proof so prepared is then passed through the vessel containing the pulverized powder, which will adhere to the parts 3 4 of the paper or sheet having the sticky ink, while it will drop off of the uncovered parts 5. This proof, partly covered with the powder, as at 6, is next subjected to light elastic pressure for about five minutes under a copying-press, for instance, or between the leaves of a book, a rubber sheet being placed over the picture. The proof is then brushed thoroughly with a soft brush and soapstone, and all powder not adhering to the ink is removed. This is necessary to obtain a good relief. After the brushing the picture is subjected to a solution of shellac and sandarac, one part each, by weight, in one part of alcohol, and then is allowed to dry for about five minutes. Then the picture, brushed as above described, is now again treated with the ink, the lines of the second imprint being kept in proper register with those of the first, and the impression is covered with the powder, again subjected to a light pressure, and brushed off. The surface is again covered with solution of shellac and sandarac and dried. The above operations are again repeated for a third time, with the difference, however, after the brushing that the surface is covered with a solution of shellac in alcohol, one part each, by weight, and gutta-percha two parts, in chloroform and acetone or acetic acid one part each. After draining off the overflowing fluid the proof or overlay sheet is subjected to a mild heat of 36° to 45° centigrade, whereby the fluid is absorbed by the powder, causing a rising of the high parts of the proof and a lateral expansion of the lower parts, resulting in a high and well-graduated relief. After thorough drying the overlay or make-ready sheet is ready for use.

Because of the peculiar combinations of powders and fluids the applied matter upon the sheet has an elasticity and adhesiveness which is not obtainable by any other process or preparation.

Having thus described the invention, what I claim as new is—

1. The process of making a "make-ready" for a printing-press, which consists in applying powdered shellac and gutta-percha to a

print or sticky or adhesive ink, substantially as set forth.

2. The process of printing which consists in preparing a "make-ready" by imprinting
5 a sheet with ink, applying pulverized shellac and gutta-percha to said ink and subjecting the powder to a solution of shellac and sandarac in alcohol and employing such printed sheet as an overlay in the printing operation,
10 substantially as set forth.

3. In the art of printing, the process which consists in applying to a sheet an imprint of adhesive matter, applying a mixture of pulverized shellac and gutta-percha to said adhesive matter and finally applying gutta-percha dissolved in chloroform and acetic acid,
15 substantially as set forth.

4. In the art of printing, the process of

which consists in applying to a sheet of non-absorbent paper, an impression in adhesive matter, applying a powder consisting of a mixture of shellac and gutta-percha to said adhesive matter, covering the powder with a solution of shellac and sandarac in alcohol, applying a second impression of ink and a second application of shellac and gutta-percha and finally applying a solution of gutta-percha, substantially as set forth. 20 25

In testimony that I claim the foregoing I have hereunto set my hand this 20th day of August, 1901. 30

MAX DETHLEFFS.

Witnesses:

WALTER SCHWALBREE,
RUDOLF HOERZBACH.