

UNITED STATES PATENT OFFICE.

CARL GIESECKE, OF HANOVER, GERMANY.

PROCESS OF PRODUCING TRANSFERS.

SPECIFICATION forming part of Letters Patent No. 663,539, dated December 11, 1900.

Application filed June 1, 1900. Serial No. 18,688. (No specimens.)

To all whom it may concern:

Be it known that I, CARL GIESECKE, a citizen of Germany, and a resident of Hanover, Germany, have invented certain new and useful Improvements in Processes of Producing Transfers, of which the following is a specification.

Heretofore when type-writers were employed for making transfers it was necessary to transfer the writing to be multiplied upon an especially-prepared transfer-paper. The use of this paper is objectionable in that the original writing, owing to its great sensibility, will only permit a clean and unobjectionable transfer under exceedingly careful and skilled manipulation. Generally the use of this paper, which is prepared on but one side and is thus apt to coil, would damage, obliterate, or blot the writing, and the latter could be corrected either not at all or at least with great difficulty.

To remove the above objections in transferring, I have devised improved means to render the use of especially-prepared paper entirely unnecessary, so that any ordinary paper may be employed for the reception and transfer of the original writing.

In carrying my invention into effect I employ a compound which contains the ingredients necessary for the transfers at such a concentration that after their transfer upon a ribbon, sheet, pad, &c., a ready and clean transfer to ordinary paper may be accomplished either by causing the type-writer or other type to act upon the body carrying the compound or by transferring sheets, as with the usual transferring-machines.

If the color-ribbon of a type-writer is prepared on one of its sides with the compound employed by me, the ribbon will upon being struck upon its back by the type transfer the copying substance in such a manner upon ordinary paper that such paper may be used directly for transferring the writing to a stone or zinc plate.

The copying substance on the ribbon is so constituted that it will transfer only at the points struck by the type, while it will not adhere to those parts which are to remain clean. The same applies to sheets prepared with the copying substance and which are used for transferring purposes.

If desired, suitable pads may be prepared with the copying substance when the type, which is brought into direct contact with the pad, will take up the substance and give it off subsequently upon striking the paper. Pads thus prepared may, for example, be used with the Yost type-writer.

The copying substance employed in carrying my invention into effect is composed, essentially, of the following ingredients: first, lithographic ink in a dissolved or ground state; second, transfer-ink. To these two principal ingredients the following are added: turpentine and printer's varnish to dissolve and dilute, oil to obtain the necessary fatty matter, and, if desired, some spirits of ammonia to accelerate the drying and smoothing.

To prepare the compound, I proceed as follows: In a porcelain mortar I grind one-half gram of the best transfer-ink with one gram of varnish and turpentine until completely dissolved. I then add about two grams of oil of lavender and under continued grinding I add gradually about five to ten grams of lithographic ink, which when in a solid state and then called "transfer stick-touche," has previously been dissolved in distilled water. To accelerate the drying, especially in warmer seasons, some drops of spirits of ammonia may be added. The lithographic ink is of the kind used for multiplying originals. The essential ingredients of this ink are frequently embodied into solid sticks, which are preferred on account of their purity and which are dissolved and ground before use.

The copying substance is uniformly spread in a liquid or pasty condition upon ribbons, sheets, or pads. The body of the ribbon or sheet is preferably composed of thin, very durable, and closely-woven linen, while the pads may be composed of fine felt or similar material. After a single or several uniform applications (during which a glass plate may be used as a foundation) the ribbons, sheets, or pads are allowed to dry and are then ready to be used in the manner described. In warm seasons the ribbons coiled up in the type-writer may be dusted over with potato-flour starch to prevent pasting together.

The writing obtained by means of the above-described transfer substance upon the ordi-

nary preferably well-glazed paper may be used at least three or four times for transfers upon stone or zinc plates.

5 The advantages of my improved process are, briefly, as follows: Ordinary paper possesses sufficient resistance and insensibility. The original writing upon it does not become extinguished or blurred and may be corrected without difficulty. Even an unskilled person
10 can with the ribbons, sheets, or pads prepared in the manner described make an absolutely clean and perfect transfer. The process is furthermore much cheaper, not only because the prepared paper is dispensed with and the
15 preparation of the ribbons, sheets, and pads is very simple, but also because by the direct

use of the type-writing space is better utilized and a saving in the transferring is effected.

What I claim is—

The process of producing transfers which 20 consists in preparing a body with a compound containing lithographic ink and transfer-ink, transferring the compound to unprepared paper by pressure, and then transferring it from the paper to the stone or zinc plate, sub- 25 stantially as specified.

Signed by me at Hanover, Germany, this 19th day of May, 1900.

CARL GIESECKE.

Witnesses:

R. GAIL,

L. KASCH.