

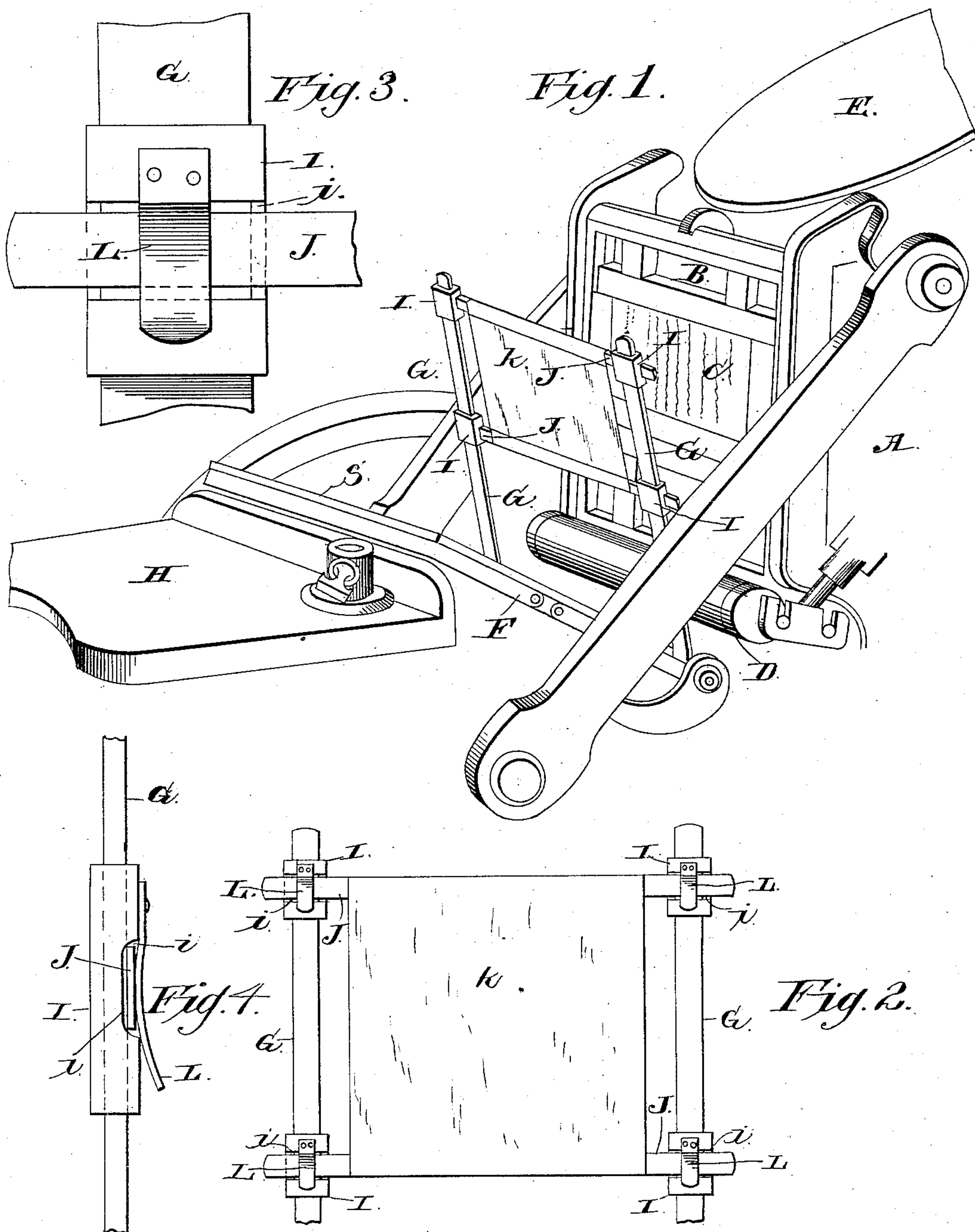
(No Model.)

G. W. WEAVER.

PROCESS OF PRODUCING COPIES IN IMITATION OF TYPE WRITING.

No. 353,338.

Patented Nov. 30, 1886.



Witnesses
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UNITED STATES PATENT OFFICE.

GEORGE WALTER WEAVER, OF ILION, NEW YORK.

PROCESS OF PRODUCING COPIES IN IMITATION OF TYPE-WRITING.

SPECIFICATION forming part of Letters Patent No. 353,338, dated November 30, 1886.

Application filed February 3, 1886. Serial No. 190,697. (No model.)

To all whom it may concern:

Be it known that I, GEORGE WALTER WEAVER, a citizen of the United States, residing at Ilion, in the county of Herkimer and State of New York, have invented a new and useful Improvement in Processes of Producing Copies in Imitation of Type-Writing, of which the following is a specification, reference being had to the accompanying drawings.

Heretofore it has been customary to print or write circulars and the like, that are to be distributed in large numbers, on the type-writer, instead of writing them by hand, to give the reader the impression that especial attention has been devoted to each circular so prepared, which is most likely to insure a reading thereof. This method of preparing each individual circular is tedious and expensive, and while it possesses advantages over the common practice of writing the circulars by hand, still it consumes the time and labor of the type-writer operator, whose salary is usually quite an item, and consequently this method is also expensive, besides it requires considerable outlay in the items of paper, ink-supplies, &c., for the type-writer.

My improved process or method contemplates the printing of a great number of copies of circulars or the like from a type or other relief surface in close imitation of type-writer copies at a very small outlay of expense, and which can be performed very rapidly and economically.

My invention relates to a method or process of printing manifold copies from a type or other relief printing-surface; and my said process consists, first, in interposing a sheet of fabric or like material between the form and the paper to be printed, and, secondly, in inking the form or other relief printing-surface and then taking the impression through the said sheet of fabric or other suitable material interposed between the form or other printing surface and paper to be printed.

I propose first to set up the type to constitute the required form, or to properly secure an electrotype, stereotype, engraving, cut, or other relief printing-surface in the form, and then to take the impression on the paper through a fibrous substance that is interposed between the faces of the tympan or impression plate or bed of a printing-press. The

fibrous inked substance may be supplied with ink by bringing it in contact with the form and taking its ink therefrom until it is properly saturated.

In the drawings I have shown one apparatus for carrying my improved method or process into effect, in which drawings the printing is accomplished on a press of the class that employs a movable tympan or impression-plate, a chase to hold the form of type, movable inking-rollers, and the ordinary gripping-fingers, such a press as, for instance, is known to the art as the "Gordon" or "job-printing" press; and in order to give the paper the blurred appearance of matter that has been printed by the type-writer, and which can only be produced by the type-writer, I suspend or affix to the gripping-arms a sheet of fabric, preferably jaconet cotton of the class employed for type-writer ribbons, and cause the ink to be applied to the said fabric so as to saturate the same after it has come in contact with the inked faces of the type for a number of times, after which saturation of the fabric the type will impress the paper through the fabric or the like, which thus gives the impression on the paper a blurred or dulled appearance that cannot be easily distinguished from a type-writer copy.

My process may be, therefore, briefly said to consist, first, in interposing a sheet of fabric between the form or other printing-surface and the paper, and, second, inking the form or other printing-surface and taking the impression from the type or other surface through the above-mentioned sheet of fabric, all as herein-after fully set forth.

In the accompanying drawings, I have illustrated an embodiment of my invention, the figures showing my preferred form of apparatus applied or connected to a printing-press known to the art as the "Gordon" press, but I would have it understood that I do not limit myself to applying the device or apparatus to any particular class of press, as it can be adapted for use upon any foot or hand power press.

In the said drawings, Figure 1 is a perspective view of a part of a job-press having my improved apparatus applied thereto. Fig. 2 is an enlarged view in front elevation of the device applied to the gripper-arms of the press;

and Figs. 3 and 4 are enlarged detail views of parts of my improved apparatus.

I will now proceed to describe the detailed construction and mode of operation of my preferred form of apparatus that is applied to a job-press for carrying into effect my improved process of producing manifold copies of circulars and the like in close or exact imitation of type-writer work, like letters of reference in the several figures of the drawings denoting corresponding parts.

A designates a portion of the frame of a printing-press; B, the chase thereof for holding the form; C, the form secured in the chase; D, the inking-rollers; E, the ink-distributing disk, on which the ink is placed, and from which it is conveyed by the rollers D to the faces of the type or other relief printing surface in the form C; F, the tympan plate or platen; G, the gripping-arms interposed between the form and tympan-plate, and H the feed-table. All the said parts are of the well-known usual form at present in use, and since they do not form a part of the present apparatus I have not deemed it of sufficient importance to illustrate the construction and operation of said parts, as they are familiar to any person skilled in the art to which the invention appertains.

I designates clamps or sleeves that are fitted and adjustably held on the gripping-arms G of the press of the class shown, two of these clamps being arranged for each gripping-arm. The clamps are disposed near the upper and lower ends of the gripping-arms, and they are made of a shape which corresponds to that of the gripping-arms, the clamps being free to slide or move on said arms to adapt them to be easily and readily adjusted thereon. Each clamp is provided on one of its faces with a cut-away portion, *i*, and in these portions *i* of the clamps are fitted the ends of transverse rods or bars J, that support the fabric *k*, through which the impression from the type in the form is made on the paper which is laid on the tympan-plate.

The transverse rods or bars J extend from one gripping-arm to the other, and one bar or rod J is provided for two of the clamps, the ends of said rods or bars fitting in the recessed portions *i* of the clamps, that are disposed in pairs at the upper and lower ends of the gripping-arms G. The cut-away portions of the clamps are provided so that the ends of the transverse holding or supporting arms can bear against or impinge upon one of the faces of said gripping-arms, and the bars or rods, together with the clamps and the yielding fabric, are held to any desired adjustment on the gripping-arms by means of flat springs L. One end of each spring is rigidly attached to the clamp which it is designed to support, and the other end or middle portion of the spring bears on one end of the transverse bar or rod with sufficient force to press the rod or bar against the gripping-arm and immovably and rigidly hold the bar to the latter by frictional contact between the opposing faces.

The clamps and rods can be easily adjusted on the gripping-arms to vary the tension of the yielding transferring fabric or substance, and the clamps and bars can be readily removed from the gripping-arms for the purpose of renewing or replacing the yielding fabric, or the fabric can be detached from the arms or bars without disturbing the latter or the clamps. The rods or bars, together with the yielding fabric, can also be removed from the clamps without disturbing the latter by simply disengaging the ends of the bars from the springs, which will then bear on the gripping-arms to hold the clamps immovably in place thereon.

A sheet of rubber or other yielding or elastic substance, S, is laid upon the platen or tympan-plate of the press, and suitably held or secured in place, and on this yielding or elastic sheet the paper to be printed upon is laid or fed, so that when the type press upon the paper they will encounter a yielding surface and be prevented from injury.

The yielding or flexible fabric can be of any preferred material, jaconet cotton of the character used on the ordinary type-writer being more especially adapted for use, and which I have found by experiment to be more durable and to give better satisfaction or results; and I have also found that the ordinary ink used on printing-presses will not give good results through the transferring fabric, and hence I have prepared a special ink that closely imitates and is hardly distinguishable from type-writer ink.

The operation of the apparatus is as follows: The type that constitute the form from which the circular is to be printed are first set up, or an electrotype, stereotype, engraving, cut, &c., secured in the form and the form secured in the chase of the press. The transferring fabric is then adjusted and secured in place on the gripping-arms, and the specially-prepared ink placed on the ink-distributing disk, after which the press is started. During the first few revolutions of the press the rollers carry the ink from the distributing-disk to the faces of the type or other relief printing-surface in the form, and the yielding transferring fabric is brought into contact with the inked faces of the type or other printing-surface until it is saturated to a sufficient degree to adapt the type or other printing-surface to print through the fabric and to obtain a fair readable impression or copy. No paper is fed to tympan-plate to receive the impression until the fabric has been uniformly and properly saturated, and after this condition of the fabric is attained the process of printing the circulars or like on the paper prepared for that purpose is commenced and continued until the proper supply has been furnished, the ink being fed continuously to the distributing-disk and carried from thence to the type in the form and to the transferring fabric. The type thus print or give the impression on the paper through a yielding inked fabric, which gives the copy

the blurred appearance that is made by a type-writer having the series of successively-operated keys, the whole circular or other like article in the present instance being printed
5 at one impression. It will therefore be understood that I do not confine or limit myself to any class of apparatus for carrying my invention or improved method or process into effect, or to the character of the press on which the
10 apparatus is used, the generic essential feature of my invention consisting in the method or process of printing manifold copies, which consists in first inking the form, then interposing a sheet of fabric or like material be-
15 tween the form or other relief printing-surface and the paper to be printed, and finally subjecting the paper to pressure, whereby the type or other relief surface will make the required impression through the fabric upon the
20 paper.

Having fully described my invention, I claim—

1. The art of printing which consists in inking the type and making the impression through

a fabric which is interposed between the inked 25 type and the surface upon which the impression is to be produced.

2. The method or process of printing circulars and the like from a type or other relief printing-surface in close or exact imitation of 30 a type-writer, consisting in first inking the form; second, interposing a sheet of fabric between the form and the paper to be printed; third, inking the fabric by contact with the form, and, fourth, subjecting the paper to 35 pressure against the form and fabric, whereby the type or other printing-surface will make the required impression upon the paper through the inked fabric, substantially as described.

In testimony that I claim the foregoing as 40 my own I have hereto affixed my signature in presence of two witnesses.

GEORGE WALTER WEAVER.

Witnesses:

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ROBT. A. SHEPARD.