

Scientific American

A JOURNAL OF PRACTICAL INFORMATION IN ART, SCIENCE, MECHANICS, AGRICULTURE, CHEMISTRY, AND MANUFACTURES.

VOL. II.—No. 25.

NEW YORK, JUNE 16, 1860.

NEW SERIES.

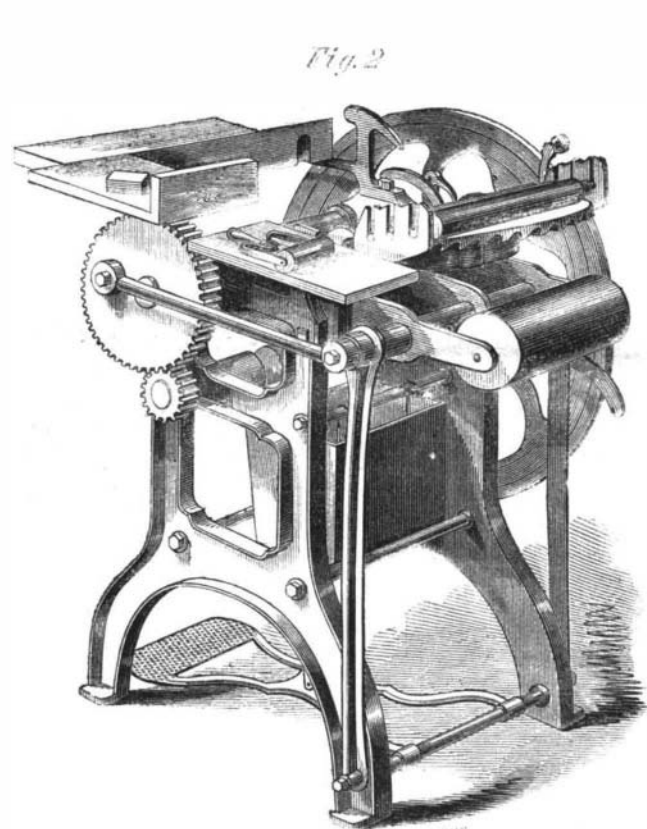
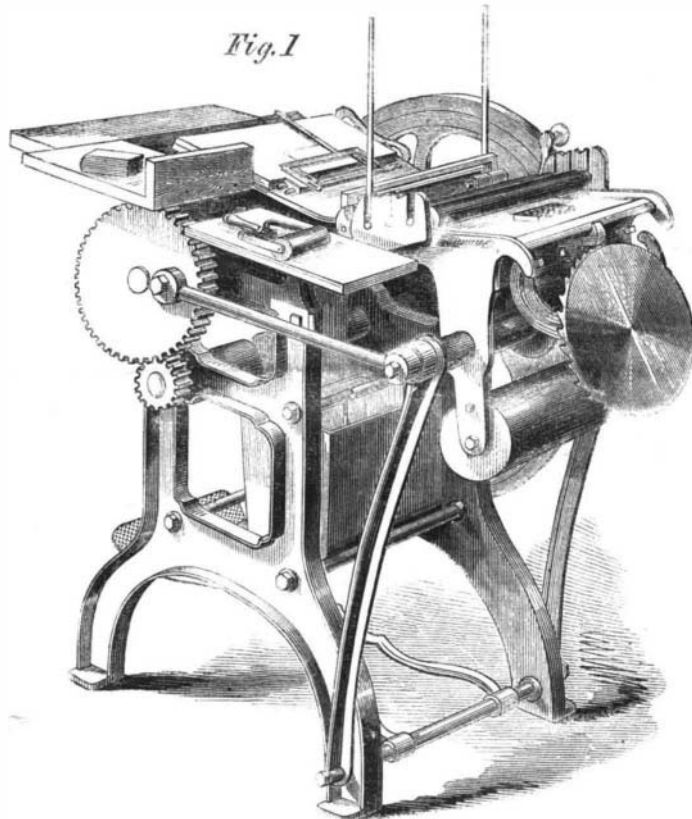
IMPROVED PRINTING PRESS.

The accompanying engravings illustrate a new card and job-printing press of very simple construction, yet possessing many advantages, which will be easily recognized in the following description by all who have some knowledge of printing, and especially by those who have had practical experience in the working of "job-printing presses."

The "bed," or that part of the press upon which the type "form" is placed, is supported by two uprights, the lower ends of which are attached to the frame of the press in such manner that the uprights can vibrate forward and backward. At a proper distance back of the "face" of the bed runs a shaft, longitudinally, to which the bed is fastened, and the ends of this shaft pass through the upper ends of the uprights, so that the

necting rod to the shaft of the type-bed. Another short piece is attached to the type-bed, eccentrically to and below the shaft of the type-bed, by means of a bolt on which it can turn, and the other end of this connecting piece is attached to the frame of the press by means of an adjustable eccentric; this connecting piece causes the bed to rotate and reciprocate when the press is in operation, and by the adjustable eccentric the taking of an "impression" may be suspended. A round table is attached to the type-bed for the distribution of the ink—rotating during the working of the press, so as to always keep the ink spread evenly. The inking-rollers are held in stationary supports, without resort to springs, and are kept in their places by their own gravity; they are, therefore, easily put on or taken off the press. A pinion or small wheel fastened to a crankshaft gears into the

drawn directly to the platen by means of a crank movement when the impression is to be given. During the operation of the press, the type-form and the ink-distributing table are passing and re-passing under the inking rollers, for the purpose of inking the type-form and for supplying the inking rollers with ink. The card arrangement is easily put to the press when cards are to be printed. By the turning of the eccentric bolt before-mentioned, by means of a short lever attached to it, the taking of an impression is suspended, and during the suspension of the taking of an impression the operation of the card-drop motion is likewise suspended; thus, if a card has been laid upon the platen, and then the taking of an impression be suspended, this card will be retained on the platen until the impression is put on again and the card is printed, after which it will drop



DEGENER'S IMPROVED PAPER AND JOB-PRINTING PRESS.

shaft can turn in them. This bed is counterbalanced on the opposite side of the shaft. On the lower side of this bed are two projecting arms, one near each end of the bed; to the ends of these arms are hinged two corresponding arms of a frame which supports the "platen," or that part of the press upon which the article to be printed is to be laid; and the platen is attached and held to this frame by means of screws, which serve likewise to adjust the platen to the type-bed. At each end of this platen-frame, a short piece is attached by means of a bolt, on which this piece can move freely, and the other ends of these short pieces are fitted between the sides of the press-frame, and are supported by a shaft running through them and through the sides of the frame; these short pieces assist in supporting and guiding the platen during the operation of the press. This shaft running through the ends of the short pieces and the frame of the press, has a toothed wheel fastened to it on one side of the press and a plate wheel on the opposite side; these two wheels have corresponding bolts placed eccentrically to the center of the wheels, and from each of these bolts, one on each side of the press, runs a con-

toothed wheel before alluded to; this shaft has a fly-wheel attached at the left side of the press and a treadle inside of the press frame, by which the press may be worked by foot. The press may also be worked by steam or any other power adapted for such purpose. We have seen it in operation, and it runs very easy and requires but little power; it is made for printing cards and paper, and has a separate and very simple arrangement for each purpose.

Fig. 1 represents the press with the card arrangement attached, and in a position where the card to be printed has just been laid upon the platen; and Fig. 2 shows the position which the bed and platen assume during the giving of an impression. All the parts which have to resist the greatest strain of the impression are made of wrought iron, which renders the press substantial in all its parts. When the type-form is to be put on, the bed is turned face upward (as shown by Fig. 1), and the form is laid on the bed and fastened in a convenient manner; should corrections be necessary, these may be made without removing the form from the bed—the same can be brought directly under the eye. The bed is

into a box suspended under the bed and platen. This card arrangement is different from that of any other press we have ever seen, and operates beautifully.

The card arrangement is removed from the platen when paper is to be printed, and side grippers are used to hold the paper to the platen, and thus relieve it from the type when it has received the impression, after which the printed paper is removed from the platen by hand; these side grippers are easily adjusted to the size of the type-form, as they are held in their proper position by springs only, and may be put in any position between the type-bed and platen without setting the press in motion. These grippers for holding the paper are moved outward, one toward each end of the platen, when the card arrangement is put to the press, as shown in Fig. 1. This press has been examined by a number of experienced printers, who all pronounce it superior, in many respects, to any other job press heretofore brought before the public. A patent for this invention was granted, April 24, 1860, to the inventor, Fred Otto Degener, who will be happy to give any further information concerning it on application at his office, No. 171 Canal-street, this city.