

N^o 57, 182.

Patented Aug. 14, 1866.

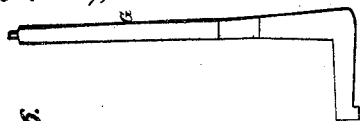


Fig: 6.

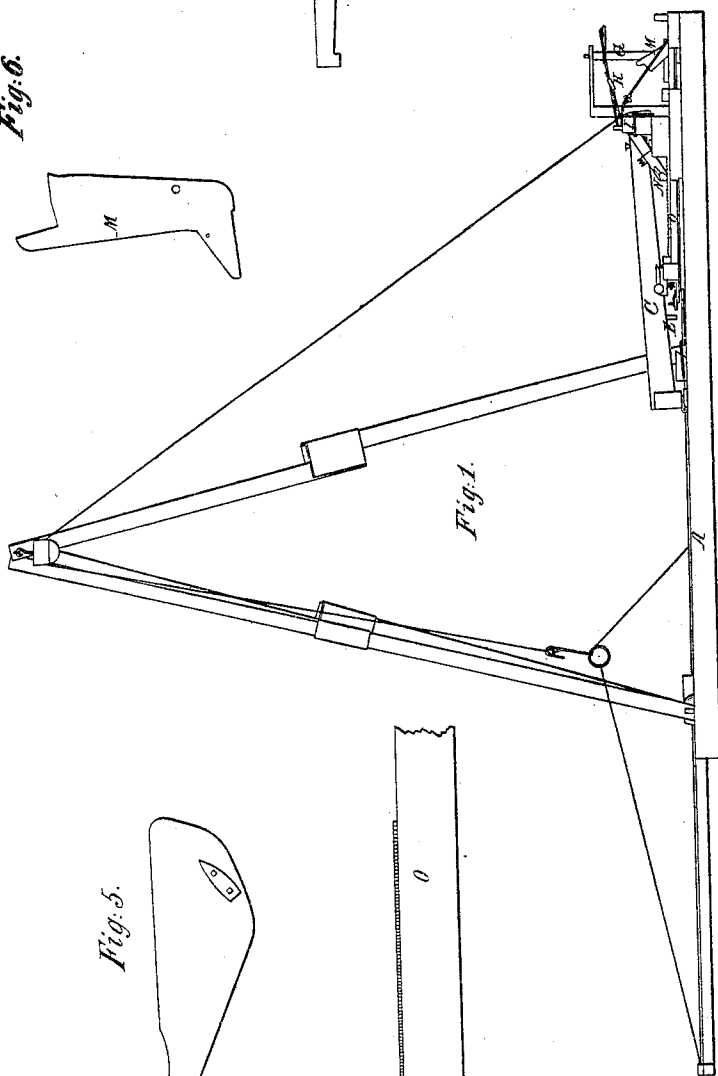
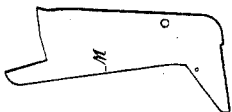


Fig. 1.



Fig. 5.

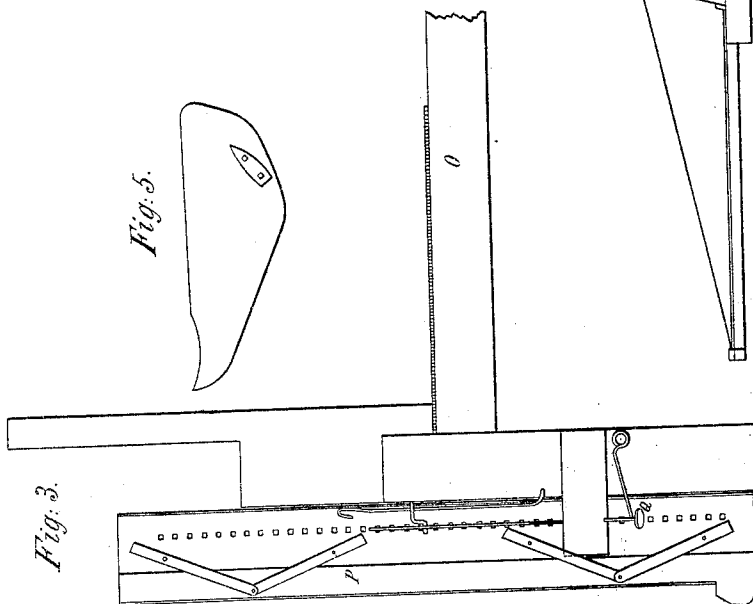


Fig: 3.

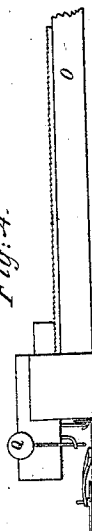


Fig: 4.

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A. Peeler *Sheet 2 of 2*
Writing & Printing Mach.

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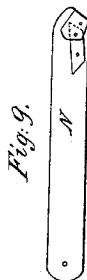


Fig. 2.

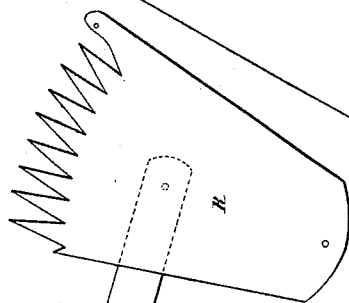
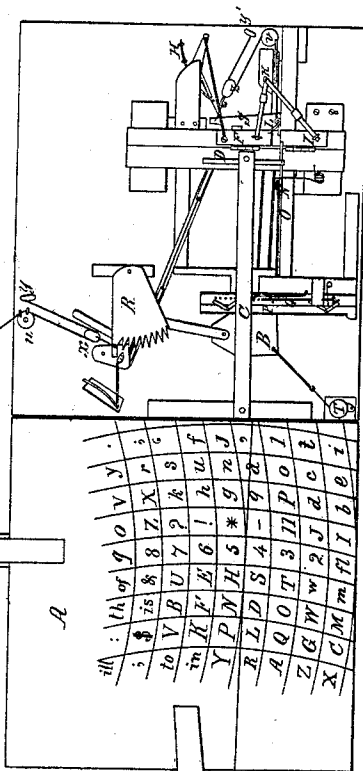
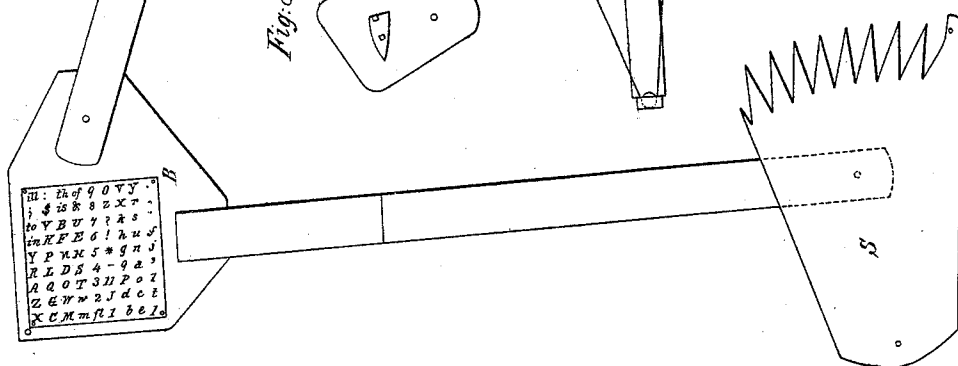
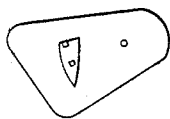


Fig. 8.



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UNITED STATES PATENT OFFICE.

ABNER PEELER, OF WEBSTER CITY, IOWA, ASSIGNOR TO HIMSELF, WM. A. CROSLY, AND N. P. CHIPMAN.

MACHINE FOR WRITING AND PRINTING.

Specification forming part of Letters Patent No. 57,182, dated August 14, 1866.

To all whom it may concern:

Be it known that I, ABNER PEELER, of Webster City, in the county of Hamilton and State of Iowa, have invented a new and valuable Machine for Writing and Printing; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

The nature of my invention consists in constructing a machine whereby reading-matter may be printed on paper, either in letters or phonographic characters, by one movement, without the use of movable types or printing-press.

I call my invention a "printing and writing machine."

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A perspective view of my invention is shown by Figure 2 on Plate 1.

Letter A on said figure represents a table of letters, figures, and punctuation-marks. I add to this table any characters or combinations thereof that may be necessary or desirable for writing or printing.

Letter B is a metallic plate with raised letters and characters thereon, corresponding with table A in number and form, but of the size only which I desire to transfer to the paper. I usually construct this plate by first making an engraving thereof on a steel plate, and then stamping the same on suitable metal for that purpose. The devices by which coin is stamped may be used in manufacturing these plates.

Letter C is a lever attached by hinges to the side of table A, as represented, and its opposite end when in use rests upon a spring, D. A pin, E, having a smooth-surfaced head, is placed in the lower side of this lever immediately above the plate B. I also attach a set-screw to the upper side of the outward end of lever C, as shown on the drawings, to regulate the amount of pressure upon said lever and the type-plate.

F is a hinged block attached to a stationary block, as shown. It serves to press down the

lever C, and also, in conjunction with the wires and springs connected therewith, aids in adjusting the type-plate in the position required. The pin shown on the top of hinged block F is connected by a wire or cord with a projecting arm on the upright rotating shaft G. (See Fig. 6.) The shaft G rotates on pins set in the top and bottom thereof and in suitable plates above and below the same. It has two arms, one of which is mentioned above, and the other is placed near its bottom to work against the spring H, as shown in the drawings.

I is a hinged block attached to the stationary block above mentioned, and at the front end of hinged block F. It has a spring attached to its upper side, extending outward and uniting with a similar spring on block F, with which it forms a triangle, of which the blocks F and I form the base. The two springs thus united are marked K. A stop, L, is fastened to the block F, and works against a wire or staple extending from block I, as represented.

In a staple extending from the top or outward side of block I, I attach a wire with a staple on its upper end. These two staples form a hinge for the movement of said wire, and they are adjusted so as to give about a half-inch play, more or less. The lower end of this last-mentioned wire is attached to an elbow-lever (marked M) by a hook that fits in an aperture therein. This elbow-lever is made in the form of a boot, and works on a pin or bolt that passes through it and unites it to a stationary block fastened to the bed of the machine. The projection of this lever (shown at the upper end thereof) falls on a plate or into a mortise in the bed of the machine, as the case may be, and in accordance with the movements of the machinery, and thereby performs the functions of a stop to govern the movement of the ratchet and pawl hereinafter described.

In a groove or slot on the inner side of block I, I place the upper end of the pawl N, the lower end of which works in a ratchet fastened to the side of sliding beam O. This pawl is fully shown by Fig. 9. I call the two united the ratchet and pawl N. A spring or other suitable device holds this pawl in its proper position. The sliding beam O, with the ratchet at

tached to it, as above mentioned, moves backward and forward under the stationary block. It has a head-block, as shown on the drawings, Fig. 3.

The paper-holder P is a metallic plate adjusted to slide endwise on the inner side of the head-block above mentioned. It has springs on its surface to hold the paper securely, and apertures, as shown, arranged for the desired movement of the paper. The end of a wire, Q, attached to a spring, as shown, fits in said apertures and enables the operator, by a pressure of a thumb on the end thereof, to move said paper-holder, and consequently the paper, the space of a line by one movement.

Fig. 1 represents two finger-plates and their connections with each other, together with the bed for the type-plate. These finger-plates are also shown with their various connections on other portions of the drawings. They are marked, respectively, R and S, and, with the devices hereinbefore and hereinafter described, serve to regulate the movements of the type-plate B and ratchet and pawl N.

A small plate, Fig. 8, with a raised piece of metal on its surface, as shown, is adjusted to work in conjunction with the plate R, as follows, namely: It is fastened to the bed of the machine by a bolt near its small end, on which it vibrates, and a spring is attached to its side to withdraw it from the finger-plate after its work is accomplished. The raised piece on its surface fits in the fingers of the plate as cogs mesh into each other, and moves the said plate in the direction desired. The finger-plate S has a similar device working in its fingers. (Shown by Fig. 5 of the drawings.) It works, in conjunction with plate R to regulate and adjust the movements of the type-plate. The coiled spring T also works in conjunction with the said finger-plates to accomplish the same result.

On Fig. 1 is a representation of a frame consisting of three upright posts united at their tops. This device is designed to form a support for one of the pulleys hereinafter mentioned and to give room for the movement of the cords by which the machine is operated. I place a pulley, as shown, at the top of this frame. I also extend two arms, as represented, from the machine-bed, in the end of each of which I adjust a pulley. I also adjust a pulley at U, and another at V. I then extend a cord from around the pulley at V, under the type-plate, to and around the pulley on the end of the left-hand arm of the machine, and to and around the pulley on the end of the rear arm thereof, passing through and connecting with a thimble suspended on the lower end of a cord that extends downward from the pulley on the top of the frame, and which also extends to and is connected with the hinged block F or an arm thereon. After passing the pulley on the rear arm of the machine, the cord first mentioned passes around a pulley, w, and is fastened at the end of said arm. I

also attach a cord to pulley W, as shown, which passes around the pulley U and the pulley X, and is made secure to a removable pin, Y. The pulley X is connected with the finger-plate R by a cord.

The removable pin Y furnishes means for tightening or loosening the cord, as may be required. From the pulley V the cord extends around the pulley Z, and is attached to a removable pin, Y'. From the plate, Fig. 8, to which it is fastened, I extend a wire to the small plate, Fig. 5, thereby connecting the same and causing them to work simultaneously.

My machine is operated as follows, to wit: I place the type-plate on its bed and the paper to be printed on its holder, with transfer-paper, such as is used in manifold-writers, above the sheet to be printed. I then place a finger in the thimble and bring the same down to the letter or character I desire to print. The devices heretofore described, connected with the cord to which the thimble is attached, bring the desired letter on the type-plate to the desired place immediately under the pin E on lever C. At the same time the cord attached to the hinged block F presses said block down upon the screw on the end of said lever, and thereby presses the pin E firmly upon the character on the type-plate which I desire to print, and which is always the same as I am pointing at on the table A by my movement of the thimble. By these means the character desired is transferred to the paper. After a line is printed I place my thumb on the end of wire Q and move the paper-holder, thereby adjusting the paper for another line of printing. Every movement of the thimble downward upon a letter on table A raises the hinged block I, and thereby moves the ratchet and pawl N and the paper sidewise the distance occupied by one character on the type-plate.

In making spaces between words I sometimes move the sliding beam by the hand, placing a finger on the end thereof for that purpose; but I usually prefer to accomplish that result by dropping the thimble toward the table over a capital letter; but I do not in that case force the same down sufficiently hard to produce an impression on the paper.

By adding to the number of sheets of paper on the holder and placing between each pair thereof a sheet of the transfer-paper, as described, the operation may produce a large number of copies by one impression.

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

1. Printing reading-matter by means of a self-adjusting type-plate having a compound movement and a lever-press, substantially as described.

2. The lever C and pin E, combined with the hinged block F, when used for the purposes specified.

3. The finger-plates R and S, with their sev-

eral adjuncts, as described, or their equivalents, for the purpose of moving and adjusting the type-plate.

4. The hinged blocks F and I, constructed and operating substantially as and for the purposes set forth.

5. The sliding beam O, ratchet and pawl N, and paper-holder P, constructed, combined,

arranged, and operating substantially as and for the purposes specified.

6. The entire machine, constructed, combined, and arranged substantially as described.
ABNER PEELER.

Witnesses:

J. CLEMENT SMITH,

H. H. SUMMERS.