

J. F. SHEARMAN.
REGISTER POINT FOR PRINTING APPARATUS.

No. 65,127.

Patented May 28, 1867.

Fig. 1.

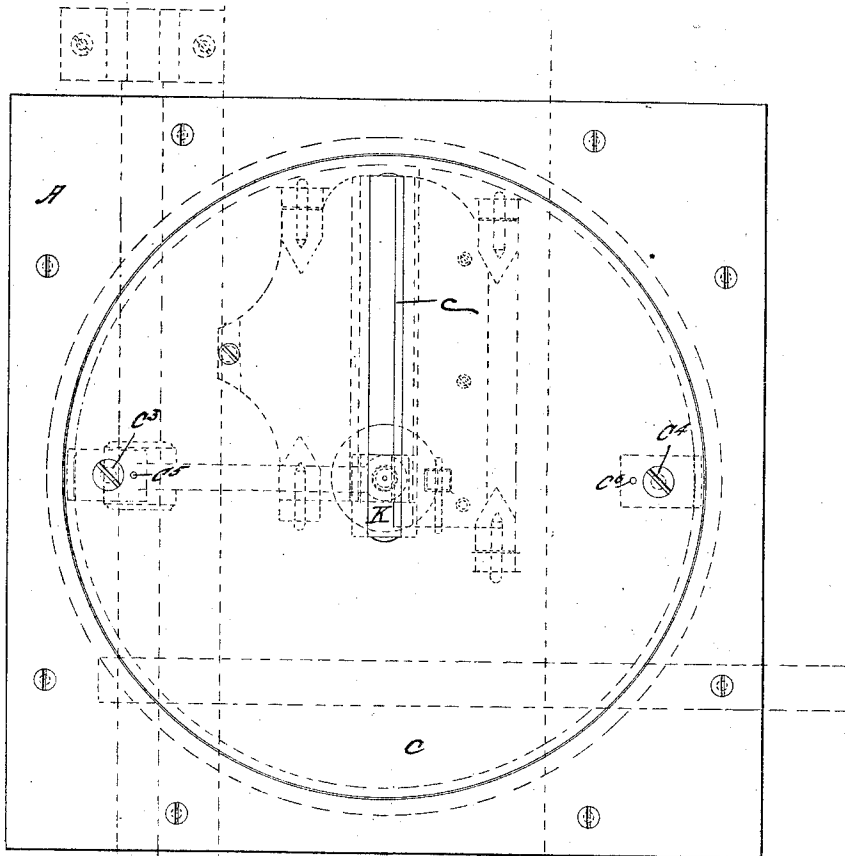


Fig. 2.

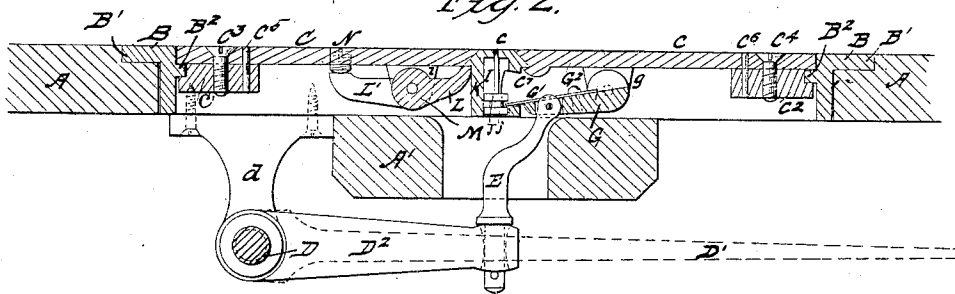


Fig. 4.

Fig. 3.

Fig. 5.

Fig. 6.

Fig. 7.

Fig. 8.

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Witnesses:

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JOHN F. SHEARMAN, OF BROOKLYN, NEW YORK. ASSIGNOR TO E. S. DODGE AND COMPANY, OF NEW YORK CITY.

Letters Patent No. 65,127, dated May 28, 1867.

IMPROVEMENT IN REGISTER-POINTS FOR PRINTING APPARATUS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, JOHN F. SHEARMAN, of Brooklyn, in the county of Kings, and State of New York, have invented certain new and useful improvements in a Pointing Mechanism for Printing Presses; and I do hereby declare that the following is a full and exact description thereof.

The object of my invention is to conveniently provide for operating the points properly in changeable positions on the feed-board, or on the piece let in so as to form a part of the same, without necessitating the turning over of the feed-board or register-plates, as at present practised. The points are sharp pieces of steel or other hard material, which are projected up through the feed-board, and receive the paper thereon, in order to insure the accurate position of the paper when the paper is subjected to two or more successive impressions, and may be of the ordinary size, and may project up to the ordinary extent. Two or more are employed on each press, but I will describe the working of only one, it being understood that the other or others are constructed and operated in a similar manner. I will proceed to describe what I consider the best means of carrying out my invention. The accompanying drawings form a part of this specification.

Figure 1 is a plan view.

Figure 2 is a central vertical section.

Figures 3, 4, 5, 6, and 7 represent details detached from the other parts.

Similar letters of reference indicate like parts in all the figures. Tints are employed merely to aid in distinguishing parts, and do not imply difference of material. The material of the novel parts may be iron and steel, or other hard, smooth material.

A is the feed-board, made of wood, in the ordinary manner; B is a circular frame, let into the feed-board, and forming the margin of the circular hole. The point may, by the aid of my invention, be operated with great facility and perfection at any desired point within the area thus bounded. B¹ is a flange, which laps upon the feed-board, and supports the ring B and the parts depending thereon. B² is an internal flange, at a lower level, which supports the interior work. C is a circular plate of cast iron, or other suitable material, adapted to rest on the flange B². It is provided with a slot, *c*, bevelled or dove-tailed as represented, and with clamping-pieces C¹ C², which, by the aid of the screws C³ C⁴, and the pins C⁵ C⁶, hold the plate C firmly down, by pressing upon both the upper and under faces of the flange B². The plate C may be turned partially or entirely around at any time, after slacking the screws C³ C⁴, and after having been turned in the position desired, it may be firmly clamped in that position by again tightening the screws C³ and C⁴ by means of an ordinary screw-driver. D is a rocking-shaft, operated by a mechanism of the press, not represented, through the aid of the arm D¹. This rocking-shaft is carried in bearings *d*, secured to the under surface of the feed-board A, and carries an arm, D², the working end of which is under the centre of the circular plate C. The operation of the press raises and lowers the arm D¹ to the proper extent at the proper time to raise and lower the points. E is a bent link, adapted to swivel in the arm D². G is a plate of cast iron, or other suitable material, hung in the hangers *g*, which are formed on the under face of the circular plate C. This plate G extends parallel to the slot *c*, before referred to. It receives a rocking motion from the arm D², through the agency of the crooked link E. G¹ is an adjustable plate of steel, secured to the top of the rocking-plate G by means of the screws G². The edge of the plate G¹ is moved up and down to the same extent as the point is desired to be operated. This edge is under the slot *c*, and the plate G extends the whole length thereon, and is operated to the same extent through each portion of its length. I is the point; it is fixed in a small circular guide, J, of brass or other suitable material, having a deep groove, *j*, around it, as represented. The whole is enclosed in a deep casing, K, which is open on one side to allow the traversing on the plate G¹ therein. The plate G¹ fits loosely in the groove *j*, and at each reciprocation of the arm D² and its connections, the point I is raised and lowered to the proper extent. The casing K is bevelled at its upper edge to an extent corresponding with the bevel on the sides of the slot *c*. The means by which the case K is firmly supported in its position are very clearly shown in the drawings. On the right-hand side in fig. 2 appears a shelf, C⁷, which extends the whole length of the slot *c*, and is adapted to firmly support the corresponding side of the case K, in whatever part of the slot *c* it may be located. The other side of the case K is supported by the edge of the removable tilting-plate L. This plate is mounted in bearings

I, on the under side of the circular plate C, and is confined by movable pins or screws M, which may be taken out to allow the removal of the adjustable plate L altogether, whenever it is necessary to remove the case K and its contents for repairs and the like. In order simply to move the casing K and its contents from one part of the slot c to another, it is not necessary to remove the plate L altogether, but simply to tilt it very slightly. This is effected by slacking the screw N, and when the case K and its contents are in the position desired, the screw N may be again turned down by a common screw-driver, so as to press on the arm L¹ of the tilting-plate L, as represented, and thus tilt the plate and hold the case K in position very firmly. The cross-bar A¹, which may be of wood, may cross under the feed-board in the position represented, and it is necessary simply to provide a circular clearing-hole in order to allow the crooked link E to turn in all directions, to allow for turning the slot c, so that it shall extend in any desired direction, and the very slight additional mechanism described allows the case K, and consequently the point I, to be changed so as to operate the point in any desired position in the slot c.

The form of many of the parts here described may be modified in various ways. For example, the clamp-piece C¹ may be cast in one piece with the plate C. The tightening and releasing of the single movable piece C² will be sufficient to confine the plate C in the desired position. So, also, the blade G¹ need not necessarily be adjustable on the blade G. It may be welded thereon, or the parts may be formed together from a single piece of steel, or other suitable material, but I prefer the adjustable construction represented, as it promotes the convenience of manufacture, and of delicately arranging the relations of the parts whenever desired. The whole mechanism of this register, excepting the swivel-link, may be enclosed by the thickness of the feed-board, thereby insuring the safety of its light construction in transportation, and rendering it needless to make provision for non-contact with other parts of the press.

Some of the advantages due to certain features of my invention may be separately enumerated, as follows: first, by reason of the fact that the case K, adapted to receive and guide the point I, with the casting J and groove j, is open at its side to allow the edge of the plate G¹ to operate therein as represented, I am able to operate the point with precision at any desired point in the slot c, without disturbing the relations of the other mechanism, and without requiring any delay in mounting and adjusting the point; second, by reason of the fact that the clamp L, mounted and arranged as specified, will slacken its hold on the case K by simply slackening the screw N, by working on the upper face of the plate C, and may again tighten its hold by the reverse operation, I am able to loosen the point and move it into any desired position, and to confine it again with great firmness, and in a manner which, by being directly under the eye of the operator, with the feed-board in its proper position, allows the operation to be effected with more ease and more nicety than when the feed-board has to be turned over in order to obtain access to the pointing mechanism; third, by reason of the fact that circular plate C, and the parts depending thereupon, may be turned so as to cause the slot c to extend in any desired position by working above the upper face of the feed-board, I am able to adjust the position with more convenience and delicacy than when the feed-board has first to be reversed in position, as with the ordinary mechanism.

Having now fully described my invention, what I claim as new therein, and desire to secure by Letters Patent, is as follows:

1. I claim the case K, enclosing the point I, and open on one side, to allow the operation of the edge of the blade G¹ or its equivalent, so as to operate the point therein in any position in the slot, substantially in the manner and for the purpose herein set forth.

2. I claim, in combination with the above, the clamp L and adjusting means N, or its equivalent, adapted to be conveniently operated from above the feed-board, so as to set the point in the desired position in the slot c, substantially as herein specified.

3. I claim adjusting the turning-plate C by operating from the upper side, all substantially in the manner and for the purposes herein set forth.

JOHN F. SHEARMAN.

Witnesses:

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