2 Sheets—Sheet 1.

S. V. ESSICK.

STEREOTYPING-MACHINES.

No. 178,843. Patented June 20, 1876.

Fig. 4.

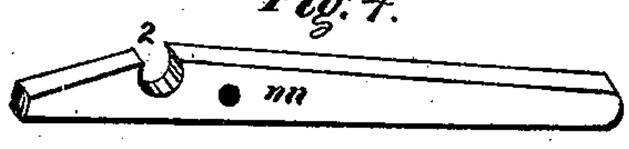


Fig. 6.

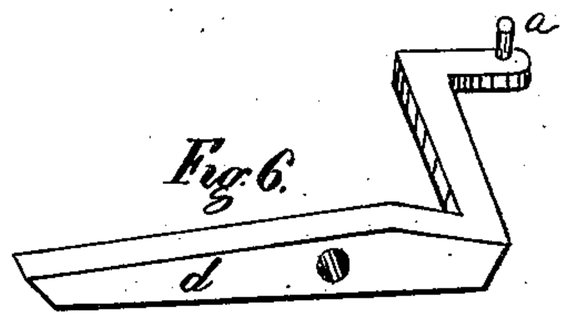


Fig. 5.

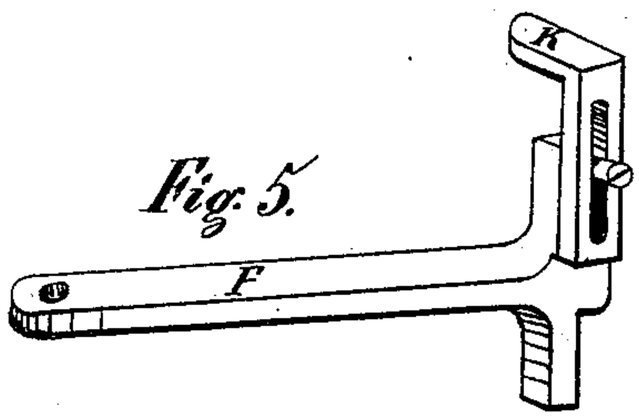


Fig. 7.

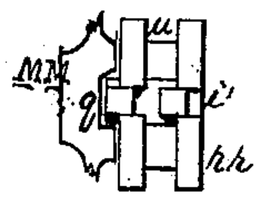


Fig. 8.

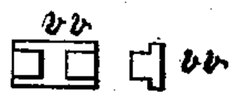
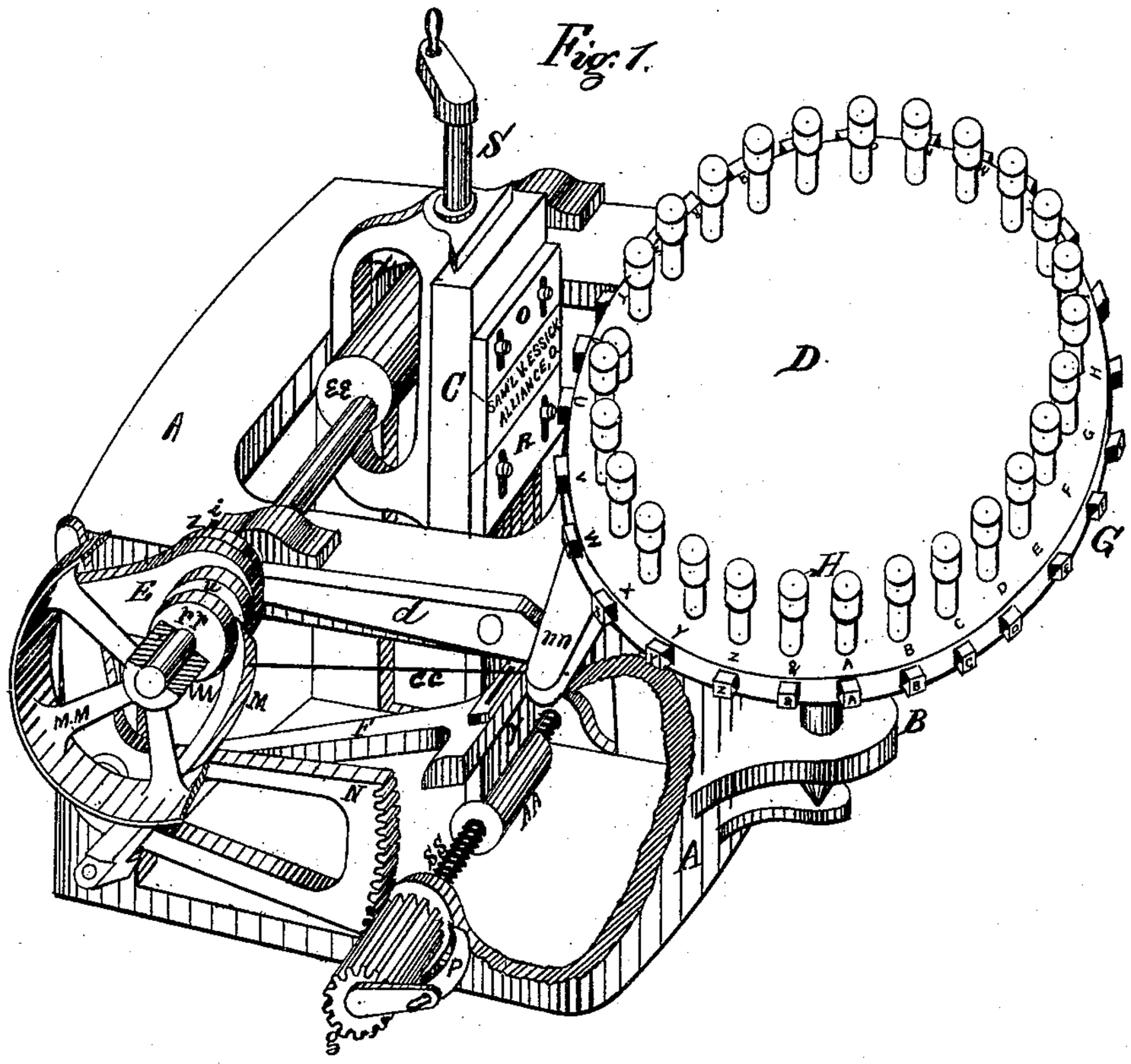


Fig. 1.



Witnesses { C. E. Marchand, J. Morgan } Inventor { S. V. Essick.

2 Sheets—Sheet 2.

S. V. ESSICK.

STEREOTYPING-MACHINES.

No. 178,843. Patented June 20, 1876.

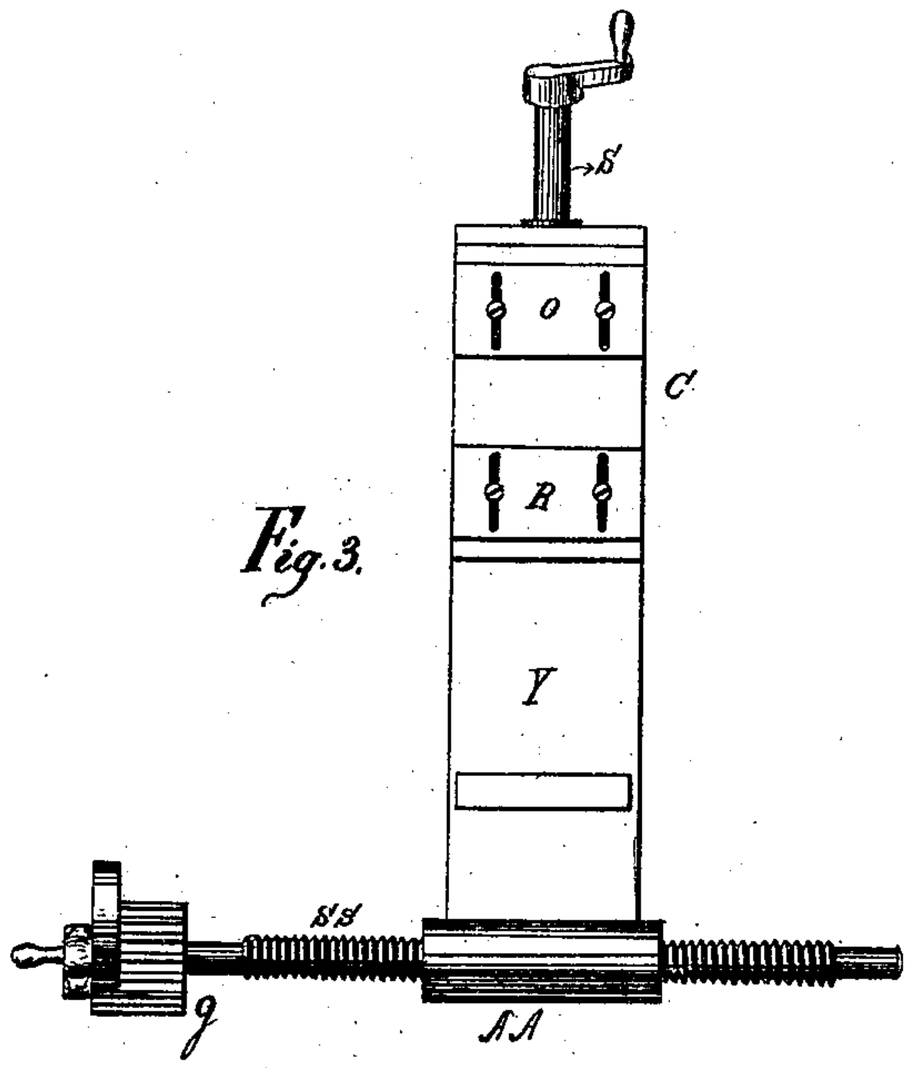


Fig. 3.

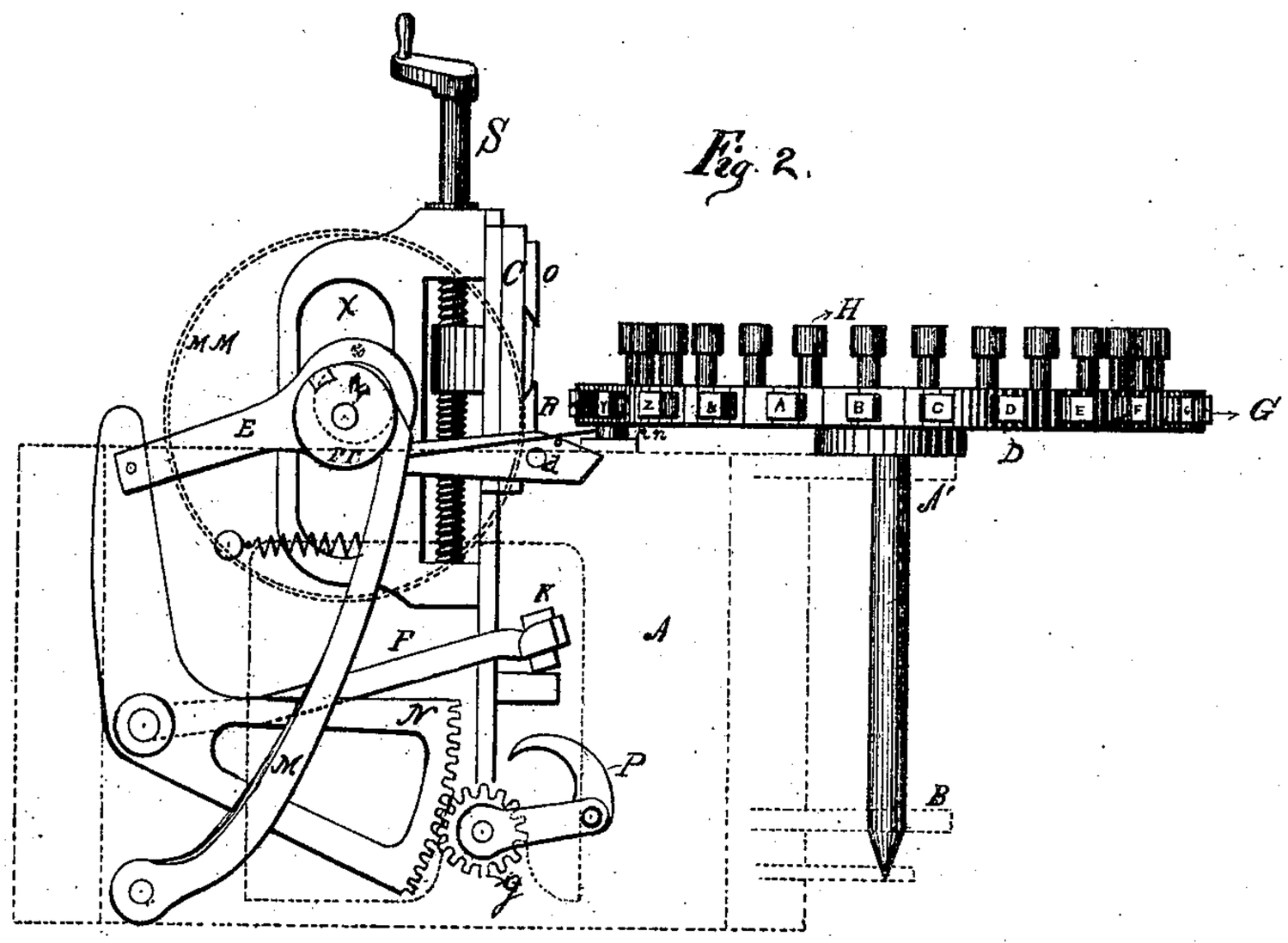


Fig. 2.

Witnesses { C. E. Marchand, J. Kennegan } Inventor { S. V. Essick }

UNITED STATES PATENT OFFICE.

SAMUEL V. ESSICK, OF ALLIANCE, OHIO.

IMPROVEMENT IN STEREOTYPING-MACHINES.

Specification forming part of Letters Patent No. **178,843**, dated June 20, 1876; application filed November 22, 1875.

To all whom it may concern:

Be it known that I, SAMUEL V. ESSICK, of Alliance, in the county of Stark and State of Ohio, have invented certain Improvements in Stereotyping-Machines, of which the following is a specification:

The object of my invention is to fix letters or numbers upon the plain surface of a plate of type-metal preparatory for printing the said plate when prepared to take the place of the ordinary type-letter, or stereotype-plate.

Figure 1 is a perspective view of the invention. Fig. 2 is a side view of the invention. Figs. 3 to 8 are sectional parts of the machine, which are definitely referred to hereinafter by letters.

A is the frame or body part of the machine, which is provided with two projections, A′ and B, for holding the shaft of the disk D. D is a disk, the periphery of which holds the letter and point dies G, and also the figure-dies, by which the letters or figures are elevated on the plain surface of a metallic plate prepared for the purpose. G is the row of letter and point, or letter, point, and figure dies, with one blank die for spacing the words surrounding the disk E. H is a row of pins or keys, on the top of, or at the sides of, which are letters, &c., corresponding with the letters, &c., on the ends of the dies G. The said keys or pins are used to stop the disk D and hold it in the proper position until the desired letter is fixed upon the metallic plate, which is prepared and placed in position for receiving it. *s* is a screw, which is used for feeding the plate C upward or downward. *s s* is a screw, which is used in connection with the segment *n*, cog-wheel *g*, collar E, and eccentric *z*, for feeding the plate C backward and forward, from left to right or from right to left. C is a plate having a plane surface and being provided with a piece, R, under the upper edge of which piece is placed the metallic plate for receiving the impression of the letter or figure dies G, the said plate C being also provided with the movable plate O, which is moved to and screwed down upon the upper edge of the said metallic plate, thus fixing said metallic plate in position for receiving the impression of the said dies G. *e e* is an eccentric, which, revolving in the slot *x*, moves the plate C with the metallic plate which it holds against the dies G, which movement fixes the letters or figures upon the said metallic plate preparatory for printing, and which also removes back from the said dies the said plate C with its metallic plate. *y* is a piece provided with a nut, *a a*, screw *s s*, and also with a slot, *x*. Said piece is used for holding the plate C. N is a segment, which is connected with the cog-wheel *g*. The same is also connected with the eccentric *z* by means of the collar E. *z* is an eccentric, the revolving of which causes the segment N to move back and forth, thus operating the cog-wheel *g*, and, by means of the pawl P, turning the screw *s s*. *g* is a cog-wheel, which is used in connection with the pawl P, the segment N, and eccentric *z* for turning the screw *s s*, thus feeding the plate C from left to right, &c. *r r* is a wheel having a groove, *u*, and slot *i*, in the said groove *u* of which the cam-point of the lever M drops, and as the said grooved wheel revolves the bolt *v v* is thrown out of its notch in the wheel M M, thus instantly stopping the machine. M M is a wheel by which the machine is driven. *v v* is a bolt which drops into the notch *q* of said wheel M M, thus, by the revolution of said wheel M M causing the machine to be operated. F is a T-shaped piece, one point of which holds the slide K and the other point drops under the pawl P, thus removing said pawl from the notches of the cog-wheel, and thus stopping the plate C at an exact point, thereby making the lines of the composition of uniform length. K is a slide, which is adjustable on the piece F, by which the operator may determine the length of the lines. In connection with the type point and figure dies there is one blank die, the office of which is to space the words. *d* is a lever having an arm with a pin, *a*, in the end of said arm. The office of said lever *d* is to strike upward into its former position any of the keys as soon as used. *i* is a pin, the office of which is to strike the lever *d* upward, and thus put in place each key as soon as it has been used. *n n* is a lever having a notch, 2, in which one of the keys, H, is held while the metallic plate receives the impression of one of the dies, G. Another office of said lever is to remove the cam-pointed

lever M out of the groove *u*, thus allowing the machine to be operated by the revolving of the wheel M M.

The operation of my invention may be described as follows: The operator takes his position at the right-hand side of the machine, and with the right hand depresses the key of the desired letter of the composition, the right key being indicated by the letter at the side of the key. The said key being first pressed down until its shoulder strikes the disk, the disk is then moved from left to right by the left hand until the depressed key drops into the notch 2 of the lever *n n*. The lever *n n*, being connected with the lever M by means of the rod *c c* by the said movement of the disk D is drawn out of the groove *u*, which allows the bolt *v v* to drop into its notch in the wheel M M, which movement causes the eccentric *e e* to revolve, and thus move the plate C with its metallic plate against the dies G. As soon as the said movement is completed the plate C immediately moves back to its former position, and while the eccentric *z* continues its movement the pin *i* in said eccentric strikes the lever *d*, which movement drives the key which has just been used back to its former position, and thus releases the disk D, and while the wheel *r r* with the wheel M M continue their motion the inclined point of the lever M throws back the bolt *v v* and releases the wheel M M, which allows the said wheel to run loose while the balance of the machine stops.

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

1. The combination of one or more sets of alphabet and point dies G with the plate C and cam or eccentric *e e*.

2. The combination of one or more sets of alphabet and point dies G with the plate C, the plates *r* and *o*, and the eccentric *e e*.

3. The combination of the keys H, the lever *n n*, the cam-pointed lever M, the clutch *v v r r*, and the wheel M M.

4. The combination of the segment N, the cog-wheel *g*, the pawl P, the collar E, and the eccentric *z*.

5. The combination of the segment N, the cog-wheel *g*, the collar E, the eccentric *z*, the pawl P, the screw *s s*, and the drop F.

6. The combination of the disk D, the letter, point, and figure dies G, the keys H, the lever *n n*, the cam-pointed lever M, the clutch *v v r r*, and the wheel M M.

7. The combination of the disk D, the letter, figure, and point dies C, the keys H, the plates C, *r*, and *o*, the screw *s s*, the levers *n n* and M, the wheels *r r* and M M, the bolt *v v*, the eccentric *e e*, the lever *d*, the pin *i*, the eccentric *z*, the collar E, the segment N, the wheel *g*, the pawl P, the screw *s s*, and the drop F, all arranged and operating as and for the purpose set forth.

SAML. V. ESSICK.

Witnesses:

JOHN R. MORGAN,

CHARLES E. MARCHAND.