J. SONNE-HANSEN.

PRINTING APPARATUS.

APPLICATION FILED FEB. 25, 1915.

1,147,760.

Patented July 27, 1915.

2 SHEETS—SHEET 1.

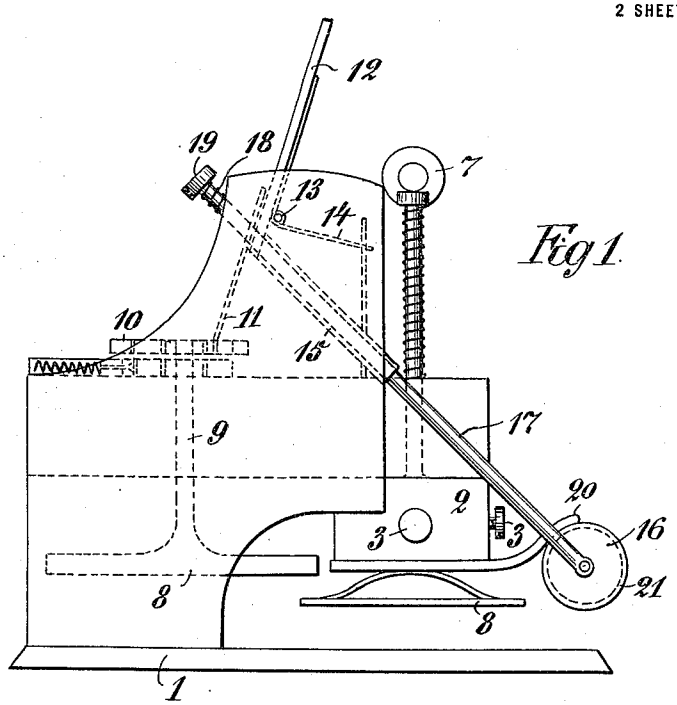


Fig 1.

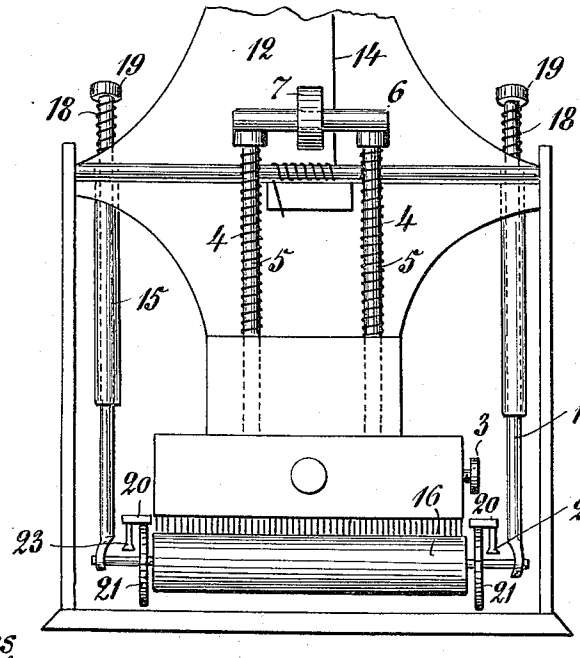


Fig 2.

Witnesses

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F. Brennan

Inventor

Johannes Sonne-Hansen

By: B. Singer Atty.

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

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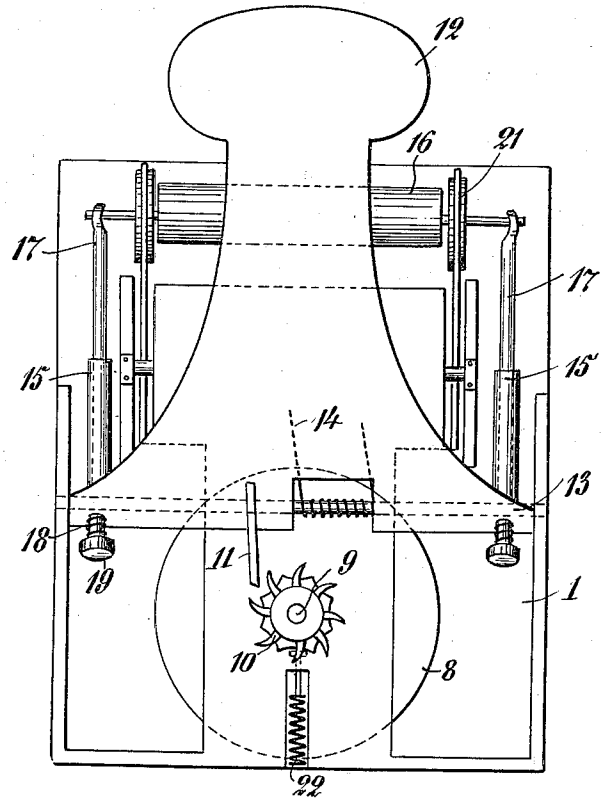
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2 SHEETS—SHEET 2.

Fig 3.



Witnesses

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UNITED STATES PATENT OFFICE.

JOHANNES SONNE-HANSEN, OF COPENHAGEN, DENMARK.

PRINTING APPARATUS.

1,147,760. Specification of Letters Patent. Patented July 27, 1915.

Application filed February 25, 1915. Serial No. 10,576.

To all whom it may concern:

Be it known that I, JOHANNES SONNE-HANSEN, a subject of the King of Denmark, residing at Copenhagen, Denmark, have invented certain new and useful Improvements in Printing Apparatus, of which the following is a specification.

In offices there is often use for a convenient apparatus for printing envelops, cards, and the like, and the present invention refers to such a simple apparatus for printing with a cut (or stereotype plate).

One form of construction of this invention is shown in the accompanying drawings, in which—

Figure 1 is a side view of the apparatus, Fig. 2 a front view of the same, and Fig. 3 a top view.

In a frame 1 there is disposed a guide for a cut-holder 2, in the bottom of which the cut can be clamped fast by means of clamp-screws 3. The cut-holder 2 is normally held in the position shown in the drawing by means of spiral springs 4 on rods 5 which are connected at the top by means of a bar 6 carrying a roller 7. On the sides of the cut-holder there are disposed a pair of blade-springs 23 which serve to remove the printed paper from the cut. In the frame there is also disposed an ink-disk 8 on a vertical axle 9 which at its top is furnished with a ratchet wheel 10 which coöperates with a ratchet-pawl 11 on the pressure-arm 12. The latter turns around a horizontal axle 13 disposed in the frame and is so arranged that, during its downward movement, it presses against a roller, thereby moving the cut vertically downward against the paper. A spring 14 holds the pressure arm 12 in its normal position. On the short end of the bifurcated pressure arm, there are disposed a pair of pipe-shaped (tubular) guide-bushings 15, in which the supporting arms 17 of the ink-rollers 16 can slide, said supporting arms being given an upward tension by means of the spiral springs 18 supplied with tension-screws 19. On the cut-holder 2 there are disposed a pair of forward-projecting guides 20 which serve to hold the ink-roller down when it is in its position of rest.

When the pressure-arm 12 is pressed down it turns around the axle 13, and the ink-roller 16 will be forced backward and it will then roll over the face of the cut and after that over the ink-disk 8, which is turned around by means of the ratchet. On pressing the arm 12 farther down, motion will be transmitted to the roller 7, and the cut will now move vertically downward and press the cut against the underlying paper. When the arm 12 is then let go, the spring 14 will force it up into its original position, while the springs 4 will lift up the cut-holder. For practical reasons, each end of the ink-roller 16 may be supplied with a carrier-roller 21, which can run on the rails 20, whereby the movement of the rollers and the transmission of the ink to the cut will always be rendered even and regular. A spring 22 may be supplied to give suitable resistance to the revolution of the ink-disk 8, which will insure an even distribution of the ink on the roller 16.

This invention can be varied in many different ways without altering its character. For instance, the movement of the ink-roller may be accomplished in another way, and there may be supplied an ink-fountain for feeding ink to the ink-disk, or the latter may be substituted by an ink-ribbon.

Having now fully described and ascertained my invention and the manner in which it is to be performed, I declare, that what I claim is:

1. A printing apparatus of the character described comprising in combination with the frame thereof, an ink roller, a pair of spring actuated arms carrying said ink roller, a spring actuated pressure arm connected to said arms, a vertical guide secured to said frame, a spring actuated cut holder running in said guide, an ink disk, and means connected to the pressure arm for rotating said ink disk, substantially as described.

2. A printing apparatus of the character described comprising in combination with the frame thereof, an ink roller, a pair of spring actuated arms supporting the ink roller, a pressure arm, an ink disk, springs connecting the supporting arms of the ink roller with said pressure arm for allowing the regulation of the position of the ink disk, a vertical guide secured to the frame, and a spring actuated cut holder in said guide, substantially as described.

3. A printing apparatus of the character described comprising in combination with the frame thereof, an ink roller, a pair of spring actuated arms carrying said ink roller, a spring actuated pressure arm connected to said arms, a vertical guide secured to said frame, a cut holder running in said guide, and blade springs on said cut holder for removing the printed paper from the cut, substantially as described.

Dated this 5th day of February, 1915.

JOHANNES SONNE-HANSEN.

Witnesses:
CHARLES HÜDE,
MARTENS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."