May 5, 1925. 1,536,186

J. B. ARNOLD

MACHINE FOR CLEANSING MATRICES

Filed Dec. 27, 1923

Fig. 1

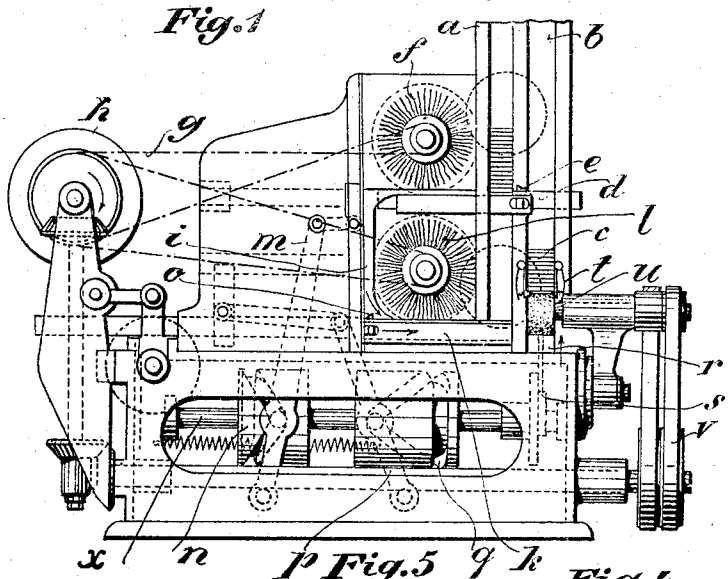


Fig. 3

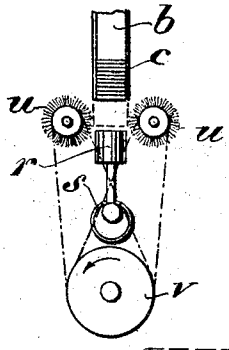


Fig. 5

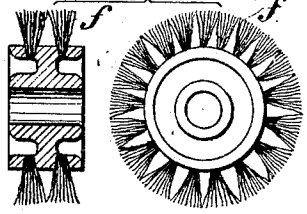


Fig. 4

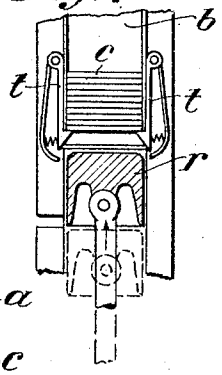
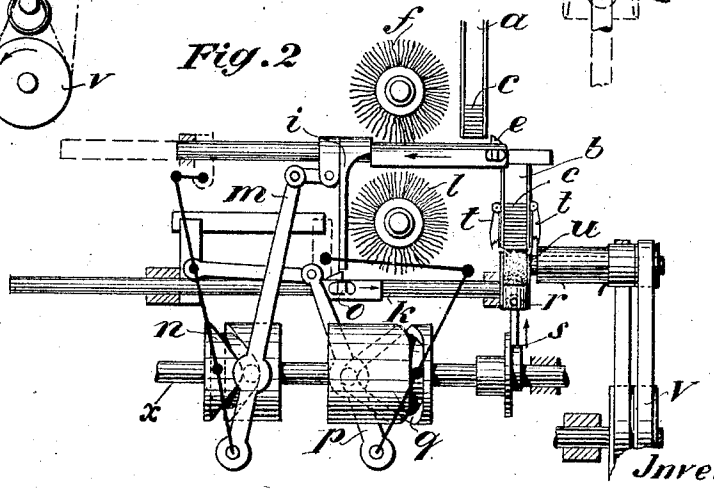


Fig. 2



Inventor:

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Patented May 5, 1925. 1,536,186

UNITED STATES PATENT OFFICE.

JEAN BAPTISTE ARNOLD, OF MILAN, ITALY.

MACHINE FOR CLEANSING MATRICES.

Application filed December 27, 1923. Serial No. 682,897.

To all whom it may concern:

Be it known that I, JEAN BAPTISTE ARNOLD, engineer, a subject of the French Republic, residing at Milan, Italy, have invented certain new and useful Improvements in a Machine for Cleansing Matrices, of which the following is a specification.

It is already known to remove matrices from a pile and to positively feed each of them through brushes. Revolving brushes have likewise been used for the same purpose. All those machines have not succeeded in practice because they were either too complicated in their construction or attaining a bad result by their work.

The present invention tries to avoid all disadvantages of the machines hitherto known by singly and positively guiding the matrices first with the front face and afterwards with the back face through the revolving brushes whereupon the cleansing of the longitudinal edges is again done by revolving brushes when the matrix is entering the deposit staple.

This arrangement enables the construction of a simple machine which effects a thorough cleansing by simple and concentrated means.

A mode of execution is represented in the drawing in which:

Fig. 1 is a total view of the machine,

Fig. 2 is a view of the driving means for the matrices (the levers drawn in heavy lines represent the second position),

Fig. 3 is a view of the lifting device for the matrices in the storing channel,

Fig. 4 is a view of the lifting and locking mechanism of the matrices in the storing channel,

Fig. 5 illustrates different views of the brush.

The machine is provided with an inlet-funnel *a* in which the matrices *c* to be cleansed are introduced as well as a storing channel *b* from which the cleansed matrices are taken off. In the channel *a* the matrices *c* are resting on a guide *d* and are fed in this guide by means of a dog *e*. During this transport the matrices are cleansed by a brush *f* which is driven by belts *g* from the pulley *h*. The brush works in the opposite direction from the movement of the matrix which causes a thorough cleansing. When the matrix is moved on far enough it is separated from its guide and falls through a channel *i* downwardly and reaches the guide *k* upon which it is cleansed underneath the brush *l* on the opposite flat side. The displacement of the matrix on the guide *d* is done by a dog *e* which is driven by means of a lever *m* and by a grooved drum or cylinder *n*. The displacement of the dog *o* for driving the matrix on the guide *k* is done in similar manner by a lever *p* which is influenced by a groove in a cylinder *q*. The cylinders *n* and *q* may be driven by a shaft *x* operated from any suitable source of power (not shown). When the matrix has been cleansed on both broad surfaces it has traveled along the guide *k* to a table *r* which is lifted and lowered by means of an eccentric disc *s*. This table lifts the matrix and drives it into the storing-channel *b* by raising the matrix lying underneath and laterally displacing the clamping device *t* being under spring pressure. In this manner the matrix is cleansed on its longitudinal edges by brushes *u* being driven by pulleys (Fig. 3).

Claims.

1. In a machine for cleaning matrices, a guide for the matrices, cleaning elements to which the matrices are fed, means to feed each matrix to one of said elements to clean one face of the matrix, means to feed the matrix to the other element in a position to effect the cleansing of the opposite face of the matrix, a storing channel formed in said machine, means to store each matrix in said channel after being cleaned by the last named element, and means to clean edges of the matrices as they are being stored in said channel.

2. In a machine for cleaning matrices, a plurality of brushes for cleaning the faces of said matrices, a storage channel formed in said machine, means to store the matrices in said channel after being cleaned by said brushes, and means for cleaning the edges of said matrices as they are being stored in said channel.

3. In a machine for cleaning matrices, a plurality of brushes for cleaning the faces of said matrices, a storage channel formed

in said machine, a reciprocating member operable to store the matrices in said channel after being cleansed by said brushes, clamping devices for engaging each successive matrix as it is stored in said channel to retain the stored matrices in position in the channel, and means to clean the edges of the matrices as the same are being stored.

In testimony whereof I have affixed my signature in presence of two witnesses.

JEAN BAPTISTE ARNOLD.

Witnesses:

LEOPOLD CAPPABAVAY,

GUYLDEN OHNAC.