(No Model.)

E. GENGENBACH.

MACHINE FOR MAKING MICA SHEETS.

No. 494,714. Patented Apr. 4, 1893.

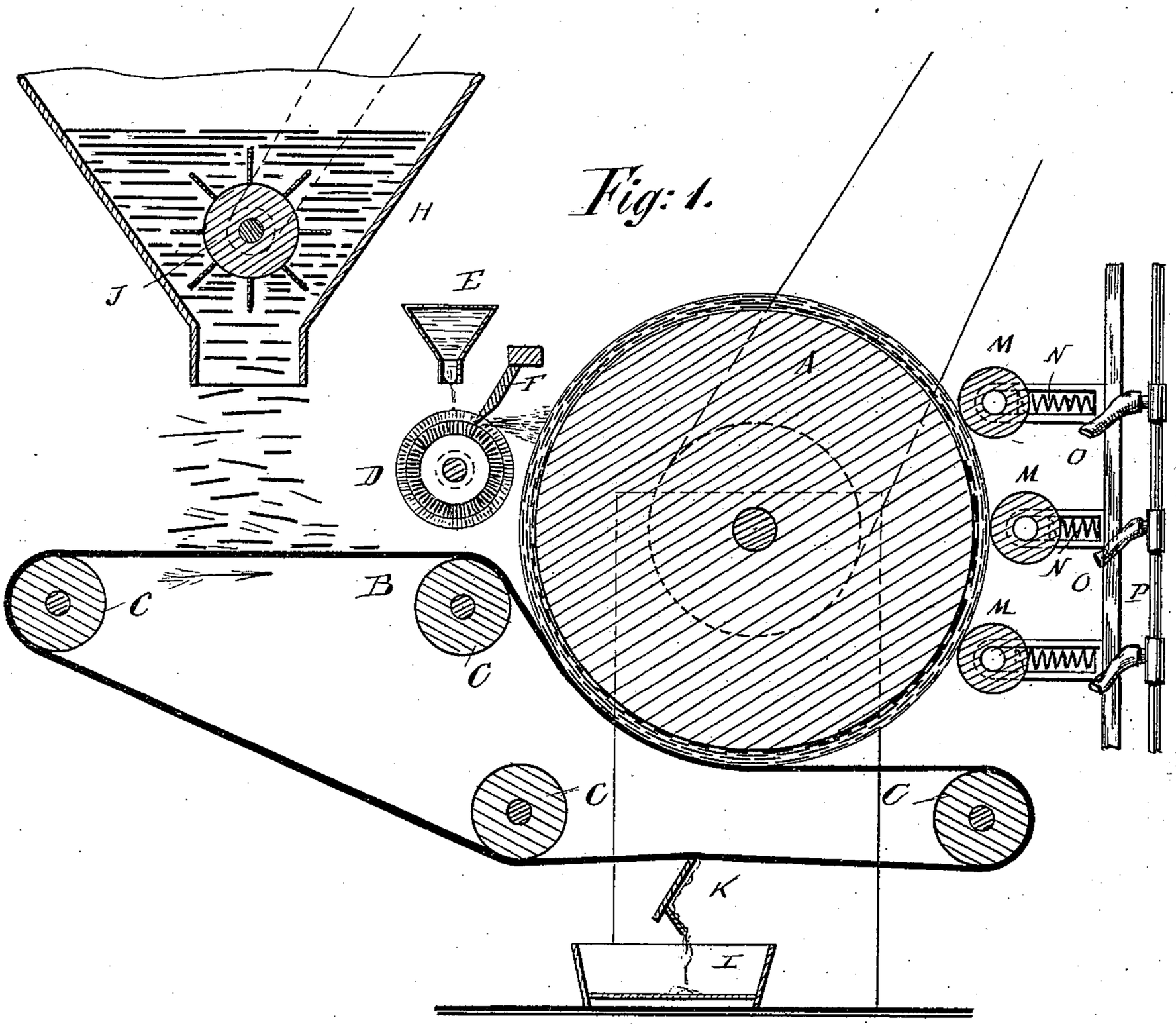

Fig: 1.

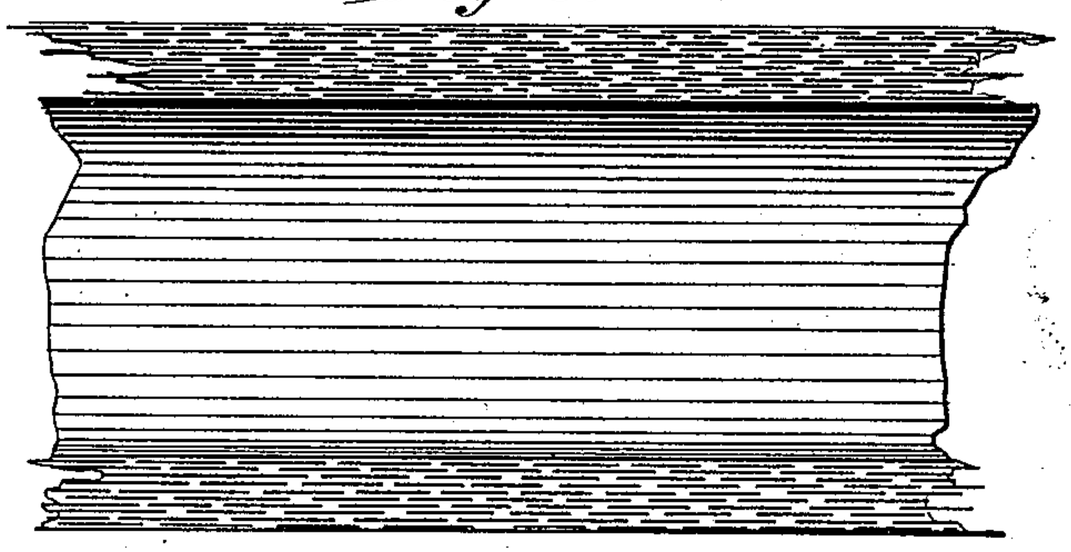

Fig: 2.

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MACHINE FOR MAKING MICA SHEETS.

SPECIFICATION forming part of Letters Patent No. 494,714, dated April 4, 1893.

Application filed September 23, 1892. Serial No. 446,695. (No model.)

To all whom it may concern:

Be it known that I, EUGENE GENGENBACH, a citizen of the United States, and a resident of Schenectady, in the county of Schenectady, in the State of New York, have invented certain new and useful Improvements in Machines for Making Mica Sheets, of which the following is a specification.

This invention relates to a new and improved machine for making mica sheets to be used for insulating purposes in dynamos, electro-motors, &c., out of pieces of mica of various sizes; and the invention consists in the combination with a drum, of an endless conveyer belt resting against the part of the same, means for feeding mica upon said belt and means for applying varnish or a similar adhesive substance to the face of the drum, whereby when the drum rotates the pieces of mica are pressed by the belt against the layer of varnish on the drum, whereby a layer of greater or less thickness of mica and varnish is produced on the surface of the drum, which layer can be cut off in pieces of any desired size.

In the accompanying drawings, Figure 1 is a vertical transverse sectional view of my improved machine for making mica sheets, and Fig. 2 is an enlarged sectional view of part of one of the sheets.

Similar letters of reference indicate corresponding parts.

The drum A, which may be made of wood or metal in any desired manner and may be of any suitable diameter, is suitably mounted in a frame, shown in dotted lines, and against part of the same an endless belt B is pressed, which passes over the guide-rollers C C C C. A rotary brush D is arranged parallel with and adjacent to the drum A and is supplied with varnish or any like adhesive substance from the trough or receptacle E above the same. A scraper F is arranged above the brush, so that the bristles of the brush strike against the upper edge of said scraper. As the brush D rotates the bristles are arrested for a short time by the scraper F and squirt or eject the particles of varnish upon the surface of the drum.

Above the belt B a receptacle H for pieces of mica is arranged, which receptacle contains a suitable agitator J. The pieces of mica drop from the bottom of the receptacle H upon the belt B, which travels in the direction indicated by the arrows, and said belt presses the pieces of mica against the varnished face of the drum or the varnished faces of the pieces of mica that have been previously applied. For each revolution of the roller a fresh coat of varnish it applied, and immediately after the varnish has been applied pieces of mica are applied.

The feeding device or receptacle or hopper H is so arranged as to feed the pieces of mica at the proper speed. If desired, the feeding device may be omitted and the pieces of mica placed on the belt by hand.

At the bottom of a belt B a scraper or doctor K is arranged, which scrapes the surplus varnish from the belt and conducts the same into a vessel L.

At that side of the roller opposite the one at which the brush D is arranged one or more rollers M are arranged parallel with the drum A and are pressed against the same by springs N in the supports of said rollers. Said rollers M are heated by steam conducted to the same by pipes O connected with the main steam-pipe P. In place of steam, hot air can be used. The heated rollers M press the several layers of mica firmly against each other and evaporate the varnish that is not required for causing the pieces of mica to hold firmly to each other. The machine continues to run in this manner until a layer of desired thickness of mica and varnish is obtained on the drum A, and then this layer is cut into strips and pieces of the desired length and shape and removed from the roller to be used for insulating purposes in the usual manner. Plates and sheets composed of mica pieces can thus be made in any desired size and cut into any desired shape, and can be produced at a very low cost, as the smallest pieces of mica such as are usually wasted, can be used on this improved machine. Cylinders of mica or segmental pieces can also be made on this machine by removing the drum and slipping the cylinder formed off the same and cutting the same into pieces of the desired size.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a machine for making mica sheets, the

combination, with a rotative drum, of means for applying an adhesive substance on the face of said drum, an endless belt in contact with the part of said drum, and means for feeding pieces of mica upon said belt, substantially as set forth.

2. In a machine for making mica sheets, the combination, with a rotative drum, of an endless belt in contact with part of said drum, means for applying an adhesive substance on the surface of said drum, rollers pressed against the surfaces of the drum, and means for heating said rollers, substantially as set forth.

3. In a machine for making mica sheets, the combination, with a rotative drum, of means for applying an adhesive substance on the surface of said drum, an endless belt in contact with part of said drum, a scraper or doctor resting against the bottom of said belt, rollers pressed against the surface of the drum and means for heating said rollers, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

EUGENE GENGENBACH.

Witnesses:
OSCAR F. GUNZ,
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