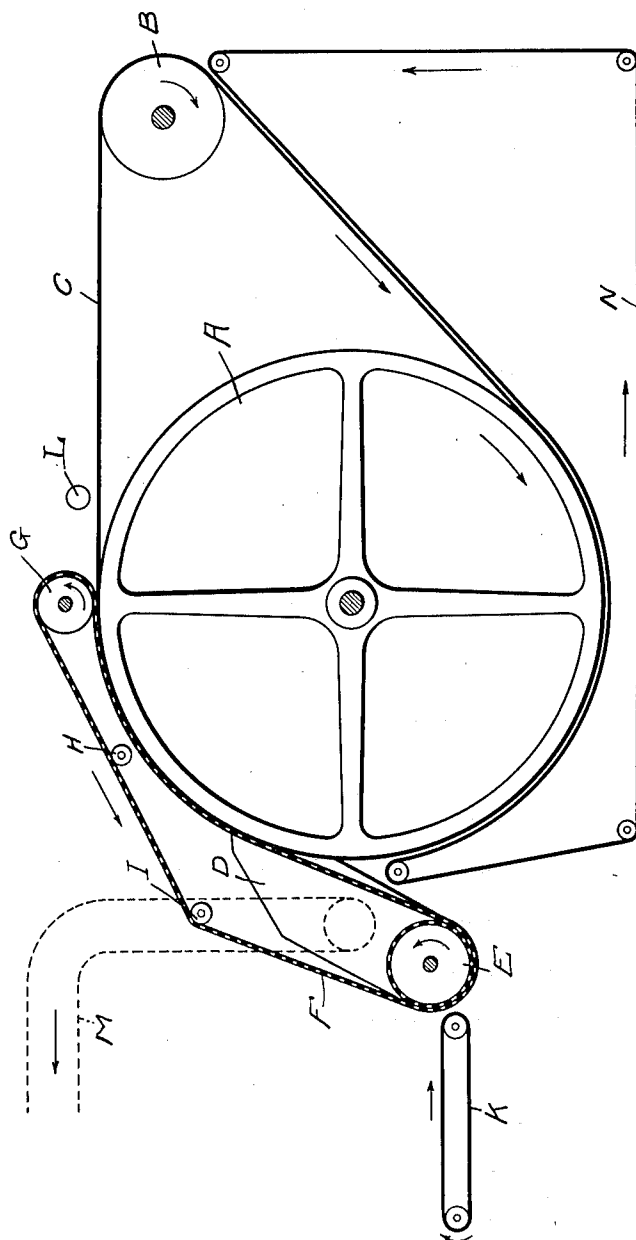


K. BASSLER.
MACHINE FOR MAKING SHEET INSULATION.
APPLICATION FILED JULY 31, 1909.

1,040,995.

Patented Oct. 15, 1912.



WITNESSES:

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UNITED STATES PATENT OFFICE.

KURT BASSLER, OF BERLIN, GERMANY, ASSIGNOR TO GENERAL ELECTRIC COMPANY,
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MACHINE FOR MAKING SHEET INSULATION.

1,040,995.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, KURT BASSLER, a subject of the King of Saxony, residing at Berlin, Germany, have invented certain new and useful Improvements in Machines for Making Sheet Insulation, of which the following is a specification.

This invention relates to means for producing sheet insulation for electrical and other uses and has for its object the provision of a machine for making insulation of this character which will readily adapt itself to a variety of uses and which may be produced at a very low cost.

One of the objects of my invention is the production of sheet insulation made from small pieces or fragments of insulating material such as mica or the like mounted upon a flexible fibrous base. In carrying out my invention, I employ pneumatic means for drawing the mica fragments onto the foundation sheet. The arrangement is such that a continuous current of air is drawn through a movable net work or wire screen, which is so arranged that only a portion of the net work is subjected to the action of the current of air. The fragments are drawn upon the screen and then pressed upon a traveling roller upon which the foundation sheet is mounted. An adhesive material is then applied which holds the fragments in place and the sheet may then continue to travel and receive successive layers of the fragments.

In the accompanying drawing is shown, in a somewhat diagrammatic way, a machine for carrying out my invention.

Referring to the drawing, the machine consists mainly of a large rotating drum A and a smaller drum B over which runs an endless belt or sheet C of fibrous material, such as cloth or paper. This belt may be formed in any desired manner, as, for instance, by securing the ends of the fibrous sheet together by adhesive. This sheet is utilized as a foundation sheet.

D is a box of substantially the same width as the drum and having located at its lower end a perforated drum E. This drum may be of sheet metal, if desired. The perforations may be of any suitable size, dependent upon the size of the fragments to be used, and other conditions. This box D is opened on the side toward the drum as

shown, and the air is exhausted from the box by means of a pipe M.

F is an endless wire screen or perforated belt which is led over the rollers G, H and I, as well as over the perforated cylinder E. This wire screen also passes through the box D and rests at its upper end upon the drum A.

K represents a belt or conveyer, by which the small mica fragments are carried to the perforated cylinder.

L is a spraying device for spraying adhesive, such as shellac, on the sheet C. The endless cords or wires N are arranged on a pulley so as to engage a portion of the sheet C to hold the mica fragments in place.

The mode of operation is as follows: The mica fragments are placed upon the conveyer K in any desired manner and fed to the perforated belt or roller E, a vacuum being maintained within the box D. As the mica fragments reach the perforated belt they are drawn upward so as to cover the perforations and a layer of mica fragments is thereby spread over the belt. These fragments adhere to the perforated belt and are then pressed against the sheet C, which is being rotated at the same speed as the perforated belt. When the fragments leave the box D there is no longer any pressure maintained upon the fragments from the vacuum. They are held on by the pressure between the two belts until they reach the upper portion, where they are sprayed with adhesive material by the spraying device L. The sheet continues around the roller B and the fragments are held on by the wires N. This rotation may be continued and successive layers applied. The sheet may then be cut from the rolls and, if desired, the mica separated from the foundation sheet.

While I have described my invention as embodied in concrete form and as operating in a specific manner, for purposes of illustration, it should be understood that I do not limit my invention thereto, since various modifications thereof will suggest themselves to those skilled in the art without departing from the spirit of my invention, the scope of which is set forth in the annexed claims.

What I claim as new and desire to secure by Letters Patent of the United States, is,—
1. A machine for making sheet insulation

comprising a movable screen, means for producing a vacuum on one side of said screen, a device for feeding mica fragments or the like to the screen to be held thereby, and a
5 movable support upon which the fragments are pressed by the screen.

2. A machine for making sheet insulation comprising a perforated endless belt, means for producing a vacuum within said belt, a
10 device for feeding mica fragments or the like to the belt to be held thereby, and a support movable with said belt for receiving the mica fragments from the belt.

3. A machine for making sheet insulation comprising a perforated endless belt, a perforated supporting roller therefor, means for producing a vacuum within said belt and roller, a device for feeding mica fragments or the like to be held by the belt and
20 an endless support movable with said belt for receiving the mica fragments from the belt.

4. A machine for making sheet insulation comprising a perforated endless belt, means
25 for producing a vacuum in a portion of the space within said belt, a device for feeding mica fragments or the like to the belt to be held thereby throughout the evacuated portion and a support engaging the belt beyond
30 the evacuated portion to receive the mica fragments therefrom.

5. A machine for making sheet insulation comprising a perforated endless belt, means for producing a vacuum in a portion of the
35 space within said belt, a device for feeding mica fragments or the like to the belt to be held thereby throughout the evacuated portion, a support engaging the belt beyond the evacuated portion to receive the mica fragments therefrom and means for applying
40 adhesive to the fragments on the support.

6. A machine for making sheet insulation comprising a perforated endless belt, means for producing a vacuum in the portion of
45 the space within said belt, a device for feeding mica fragments or the like to the belt to be held thereby throughout the evacuated

portion, an endless support engaging the belt throughout a portion of its travel to receive the mica fragments therefrom and
50 means for applying adhesive material to the fragments after leaving the belt.

7. A machine for making sheet insulation comprising a supporting roller, a perforated endless belt engaging said supporting roller
55 throughout a portion of its surface, means for producing a vacuum within a portion of the space within the belt, means for feeding mica fragments or the like to the belt to be held thereby and pressed onto the supporting roller and means for applying adhesive material to the fragments after leaving the belt.

8. A machine for making sheet insulation comprising a perforated endless belt, a perforated supporting roller therefor, means
65 for producing a vacuum within said belt and roller, an imperforate supporting roller arranged to be engaged by the perforated belt throughout a portion of its surface, means
70 for feeding mica fragments or the like to the belt to be held thereby and pressed onto the imperforate roller, and means for applying adhesive material to the fragments after leaving the belt.

9. A machine for making sheet insulation comprising a pair of rollers mounted in parallel relation for receiving a flexible sheet, a perforated endless belt engaging one
80 of said rollers throughout a portion of its surface, means for producing a vacuum within a portion of the space within the belt, means for feeding mica fragments or the like to the belt to be held thereby and pressed onto the roller, and means for applying adhesive material to the fragments after leaving the belt.

In witness whereof, I have hereunto set my hand this 19th day of July, 1909.

KURT BASSLER.

Witnesses:

TY EMILIO FORDELLI,
GUILISON MARIO.