

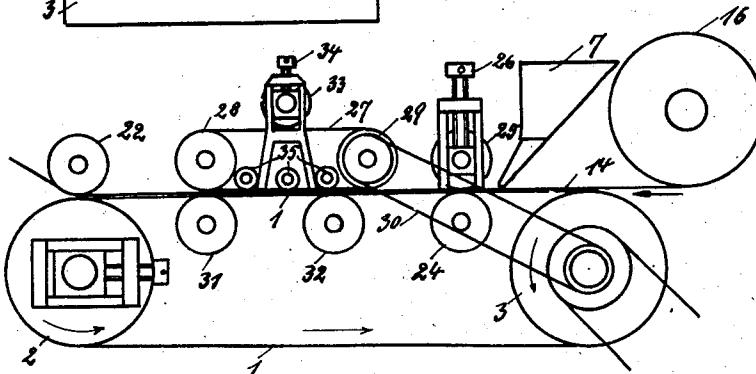
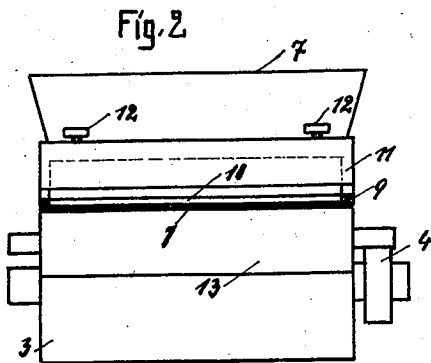
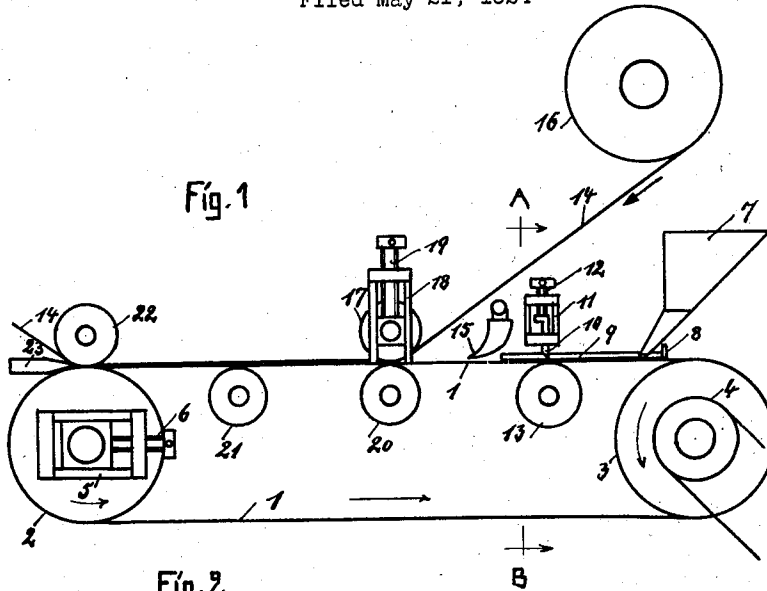
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1,579,036

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COATING OF WEBS OF PASTE BOARD, FABRIC, OR THE LIKE

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UNITED STATES PATENT OFFICE.

LUDWIG SCHWABE, OF HAMBURG, GERMANY.

COATING OF WEBS OF PASTEBOARD, FABRIC, OR THE LIKE.

Application filed May 21, 1924. Serial No. 714,779.

To all whom it may concern:

Be it known that I, LUDWIG SCHWABE, citizen of the Republic of Germany, residing at Hamburg, Germany, have invented new and useful Improvements Relating to the Coating of Webs of Pasteboard, Fabric, or the like, of which the following is a specification.

This invention relates to a process and device adapted to coat paste board, fabrics or the like continuously during operation with a coating mass such as asphalt, tar, resin, india rubber or the like. For this purpose the coating mass is either applied to an endless metal band and then pressed upon the unrolled web of paste board, fabric or the like, or is directly applied to the latter and pressed thereon by means of an endless band.

In the accompanying drawing are illustrated diagrammatically by way of example two forms of construction for carrying the invention into effect. In the drawing—

Figure 1 is a side elevation of one type of machine.

Figure 2 is a section on the line A—B of Figure 1, and

Figure 3 shows a second form of device.

Referring first to Figure 1, an endless metal band 1 is guided around drums 2 and 3, of which the latter is driven by a belt pulley 4, whilst the drum 2 can be adjusted in guides 5 by means of screws 6 for the purpose of tensioning the metal band. The hot viscous coating mass is conducted from a funnel 7 on to the metal band. In order to prevent the mass from flowing off the metal band, lateral rods 9 and a rear rod 8 are provided.

In order to adjust the thickness of the layer there is provided a scraper 10 which can be adjusted in guides 11 by means of screws 12 and which is arranged opposite a counter roller 13. Instead of the roller 13 a stationary plate may be arranged underneath the scraper 10. Cold air may be blown on the coating layer through a nozzle 15.

The coating layer is pressed between the pressure rollers 17 and 20 upon the web of paste board or fabric 14, which is unrolled from the drum 16. By this pressure the coating layer is caused to adhere to the web of paste board, fabric or the like. The pressure roller 17 is adjustable in guides 18 by means of screws 19. The metal band

supported by supporting rollers 21 may also be passed between further pairs of pressure rollers so that the pressing of the coating layer to the web of paste board or the like may be repeated.

Above the drum 2 is provided a pressure roller 22 behind which is disposed an adjustable cutter 23 which is adapted to separate the coating layer from the metal band 1 by being in sliding engagement with the latter.

The web of paste board, fabric or the like thus coated on one side can be passed into a second device by means of which the other side is provided with a coating layer in a similar manner.

In the device illustrated in Figure 3 the coating mass passes directly from the funnel 7 onto the web 14 of paste board, fabric or the like unrolled from the drum 16 and the thickness of the layer is controlled between the pressure rollers 24 and 25 of which the latter is adjustable by means of screws 26.

The pressing of the coating layer against the web is effected by means of an endless band 27 which is guided by drums 28 and 29, the latter being connected to the drum 3 by a rope, chain or the like 30. The band 27 is tensioned by means of a roller 33, which can be adjusted by means of screws 34, and pressed upon the coating layer by means of pressure rollers 35 and counter rollers 31, 32. In this device the pressure is applied on a larger area.

The product obtained is cut into sheets of suitable length or wound into rolls of desired length according as to whether the covering mass has been applied to paste board or fabric and is used as a covering for roofs, insulating purposes, or as a covering for floors, walls and the like.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—

1. A device for applying a viscous coating mass to a layer of material including an endless movable band, drums over which said band is passed, rollers supporting said drums, a scraping device above said band, pressure rollers behind said scraping device, means for continuously applying a coating mass in a layer of regular thickness onto said endless band, means for feeding one surface of a web or paste board into contact with said coating as said web is

passed under said pressure rollers, and means for applying further pressure to said web before passing from said band.

2. A device for applying a viscous coating mass to a layer of material including an endless metal band, drums over which said band passes, means adjacent one drum for feeding the coating mass to said band, means for spreading said mass in a layer of uniform thickness over said band, pressure rollers located medially of said drums and between which said band passes, and means for feeding the material to be coated between said rollers, said material first contacting said band and the mass thereon at a point between said rollers and continuing in contact therewith to a point adjacent the other drum.

3. A device for applying a viscous coat-

ing mass to a layer of material including an endless metal band, drums over which said band passes, means adjacent one drum for feeding the coating mass to said band, means for spreading said mass in a layer of uniform thickness over said band, pressure rollers located medially of said drums and between which said band passes, means for feeding the material to be coated between said rollers, said material first contacting said band and the mass thereon at a point between said rollers and continuing in contact therewith to a point adjacent the other drum, and another pressure roller engaging said material at the latter point.

In testimony whereof I have signed my name to this specification.

LUDWIG SCHWABE.