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STRIPPING MACHINE FOR USE IN CONNECTION WITH SIDING BOARDS

Original Filed July 25, 1956

2 Sheets-Sheet 1

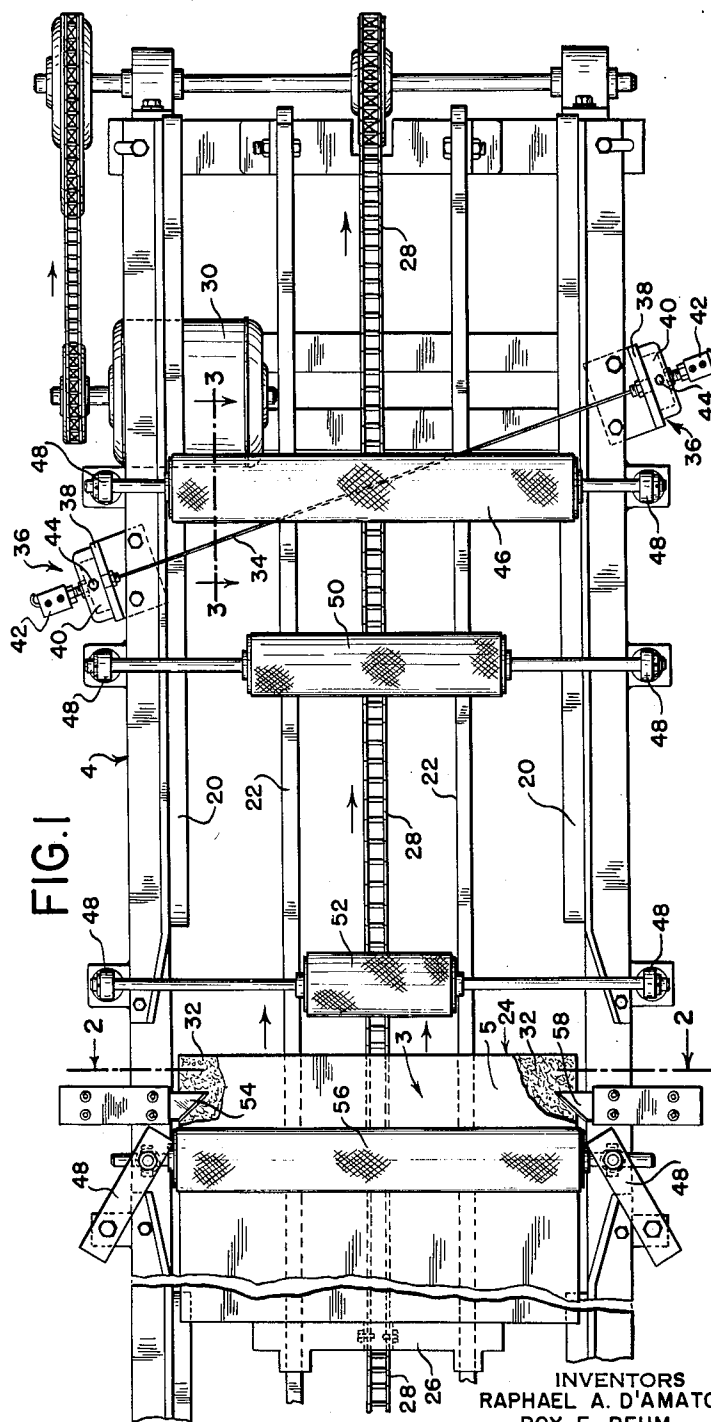


FIG. 1

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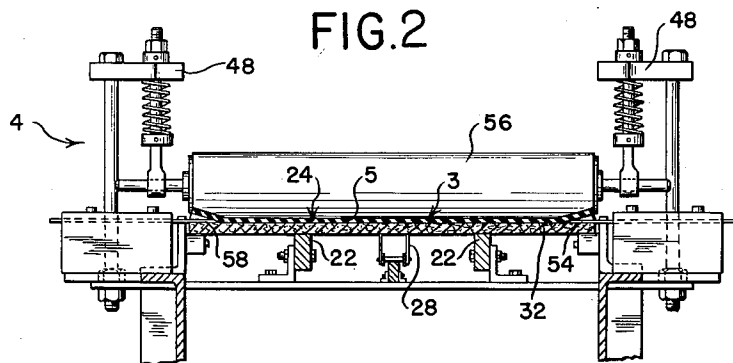
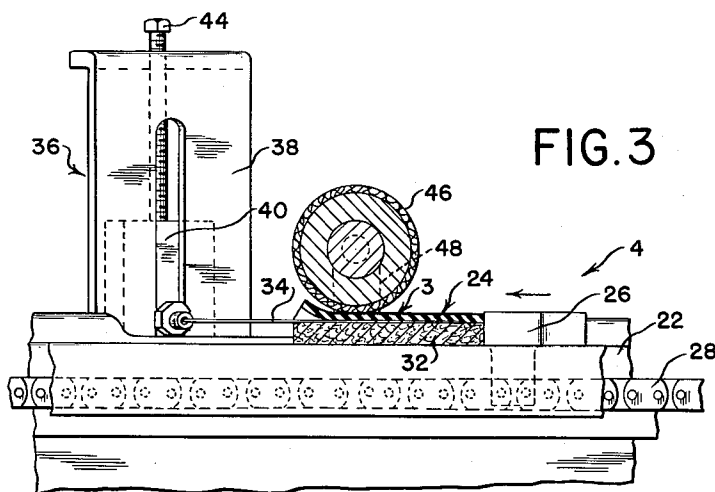
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STRIPPING MACHINE FOR USE IN CONNECTION WITH SIDING BOARDS

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Original application July 25, 1956, Ser. No. 599,991. Divided and this application Aug. 25, 1959, Ser. No. 840,217

5 Claims. (Cl. 156—584)

This invention relates to the manufacture of building materials, and more particularly to a machine for use in connection with the forming of corner- or bridgepieces for use with insulated siding in the exterior finish of buildings. This application is a division of my application Serial No. 599,991, filed July 25, 1956, now abandoned.

A widely accepted material for the exterior finish of residential and other buildings known as insulated siding comprises a stiff backing of asphalt impregnated fibrous or cellulosic material covered with a finish layer of asphalt mixed with very finely crushed rock, into the surface of which layer is rolled a coating of slate granules. This material is commonly provided in boards of substantial size, for example 14 by 43 inches approximately, and these boards are applied as an exterior finish to the side of the building, commonly with an overlap between the successive courses in the same manner as wood siding or clapboards. At the corners of the building the ends of the boards are, as first applied, exposed, and the invention is concerned with the provision of cornerpieces to conceal the ends of the siding so exposed. Since the siding is frequently provided with a pattern in its exterior surface, for example in the form of striations in the color of the slate granules or in the form of surface indentations imitative of the grain of wood, it is important for satisfactory appearance of the finished building that the cornerpieces possess the same finish as the siding boards which they are to complete.

The invention provides a machine for use in connection with the manufacture of such cornerpieces from a piece of the same finish layer as the siding itself, shaped to fit the space at the corner of a building between two siding members and supported on a similarly shaped backing sheet of metal such as aluminum. The machine of the invention is one for stripping from siding boards of the same lot as those with which the cornerpieces are to be used the finished layer which then may be cut into strips of desired size and shape, coated with an adhesive and applied to metal backing sheets, and the resulting laminated structure shaped into the form of the desired cornerpiece.

The invention will now be described in greater detail with reference to the accompanying drawings in which:

FIG. 1 is a plan view of a stripping machine according to the invention for stripping the finish layer from insulated siding boards; and

FIGS. 2 and 3 are sectional views taken on the lines 2—2 and 3—3 of FIG. 2.

The stripping machine 4 of the invention comprises a pair of parallel angle members 20 together with runners or rails 22 constituting a set of guideways defining a horizontal channel down which pass siding boards as indicated at 24 for the stripping operation in which the plastic finish coating is removed from the stiff backing. The boards 24 are driven through the machine of FIG. 1 by pusher bars 26 which are attached to an endless conveyor in the form of a chain 28 driven from a motor 30 by a sprocket and chain drive as shown.

Stripping of the finish coating 3 from the backing 32 of the boards 24 is accomplished by a wire 34, stretched

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transversely of the channel formed by angles 20 and rails 22. The wire 34 is positioned above the bottom level of this channel at a height substantially equal to the thickness of the backing member 32 of the board. In insulating board of types commonly available, the backing member 32 may be of the order of 1/2 inch thick while the finish layer 3 to be stripped therefrom may be of the order of 3/32 inch thick.

The wire 34 is stretched across the stripping machine between a pair of fixtures generally indicated at 36 positioned to incline the length of the wire 34 obliquely to the chain 28 and hence to the direction of motion of the boards 24. The fixtures 36 include each a vertical slotted member 38 affixed to the frame of the stripping machine 4, outboard of the channels 20. The fixtures further include an apertured block 40 through which wire 34 is passed and a clamp 42 in which the wire may be clamped under tension. The height of the wire with respect to rails 22 is adjusted by means of screws 44 which raise or lower blocks 40 with respect to the slotted member 38.

To position properly the advancing boards 24 with respect to the stripping wire 34, the machine is provided with a hold-down roller 46 positioned lengthwise of the machine at the location of wire 34. Roller 46 is located with the tangent to its lower surface above rails 22 by a distance substantially equal to or slightly less than the complete thickness of the boards 24. Roller 46 is supported in brackets 48 which include resilient elements permitting the roller to be forced upward by the boards 24, so that during passage of the boards thereunder they are resiliently held down against rails 22.

Additional hold-down rollers 50 and 52 may be provided in advance of the stripping station, i.e. in advance of the location of wire 34, to insure that the boards 24 will be held flat on rails 22 during the stripping process.

To prepare the boards for stripping by wire 34, a starting knife 54 or cutting wheel idle or driven is provided in advance of the wire, to separate the finish coating 3 from the backing member 32 of the board at the corner of the board first engaged by the wire. Knife 54 is provided with a short blade having an edge oblique to the path of motion of the board, the blade being fixedly positioned above rails 22 by the thickness of the backing member 32. A hold-down roller 56 is arranged immediately in advance of knife 54. Advantageously a second starting knife 58 is provided on the opposite side of the board channel, as indicated in FIG. 1, to make an initial severance of the upper layer of the siding board at the other side thereof. The operation of the starting knives is illustrated in FIG. 2 which also shows the construction of the resilient mountings 48 for the hold-down rollers. Knife 58 prevents tearing of the finish coating 3 when the advance of the board 24 brings its leading edge into contact with the wire 34 at the side of the board last engaged by the wire.

With the leading corners of the board "started" by knives 54 and 58, wire 34 strips the finish coating 3 from the backing member 32 in the manner illustrated in FIG. 4. Thus the finish coating from each board is removed in an entire sheet. At room temperature this finish coating, including its adherent layer of granules 7, constitutes a stiff sheet, easily handled in the remaining operations involved in manufacture of the cornerpieces of the invention.

While the invention has been described herein in terms of a preferred form of stripping machine, various changes may be made in the specific form of the machine as thus described without departing from the invention itself which is defined in the appended claims.

We claim:

1. A machine for stripping the outer layer from a laminated siding board, comprising means defining a chan-

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nel, means for pushing a siding board lengthwise of said channel, a stripping wire extending transversely and obliquely of said channel and substantially parallel to the bottom thereof, said stripping wire being spaced above the bottom of said channel and in the path of movement of a siding board being pushed along said channel, whereby when said siding board is pushed past said wire, the upper layer of the siding board will be stripped therefrom.

2. A machine according to claim 1, in which the means for pushing a siding board lengthwise of said channel is an endless conveyor having pushing elements adapted to extend into said channel and to engage a siding board in the channel, and which includes a first knife extending into said channel from one side thereof, said knife being located in advance of the stripping wire, in the direction of movement of a siding board through said channel, and positioned above the bottom of the channel a distance substantially equal to the distance that the stripping wire is positioned above the bottom of the channel, said knife being adapted to engage a forward corner of a siding board being pushed along said channel and to make an initial severance of the upper layer of the siding board at one edge thereof before said siding board reaches said stripping wire.

3. A machine according to claim 2, including a resiliently-supported roller extending transversely of said channel above said wire, said roller being adapted to

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maintain a siding board against the bottom of said channel during a stripping operation.

4. A machine according to claim 2 including a second knife extending into said channel from the other side thereof and positioned similarly to said first knife, and a resiliently-supported roller extending transversely of said channel adjacent said knives to hold a siding board against the bottom of said channel at the location of said knives.

5. A machine according to claim 4 in which the cutting edges of said knives extend obliquely to the length of said channel in the direction of movement of a siding board lengthwise of the channel.

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