

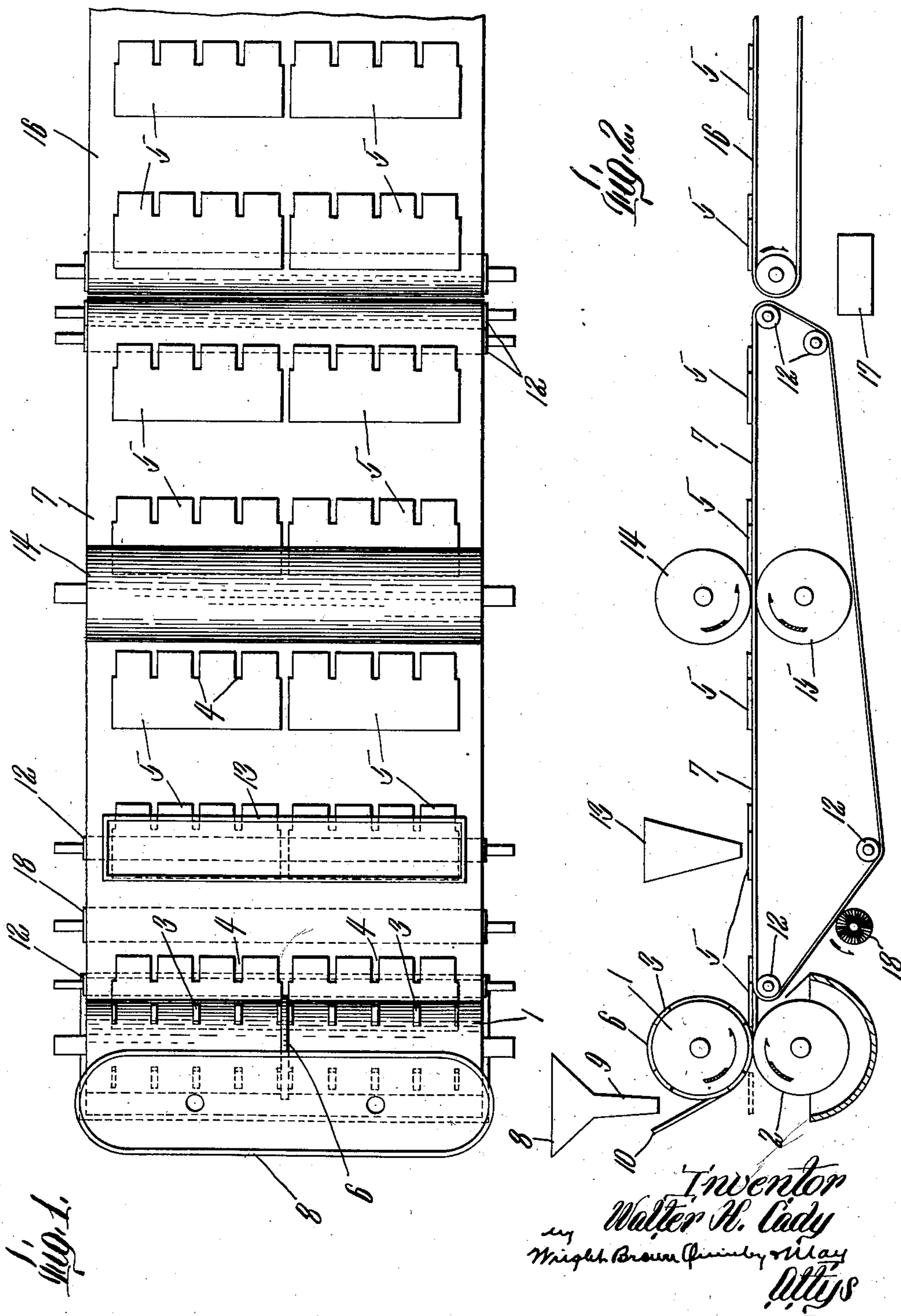
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PREPARED ROOFING

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PREPARED ROOFING

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Original application March 19, 1926, Serial No.
95,820, which in turn is a continuation of Serial
No. 526,329, December 31, 1921. Divided and
this application January 2, 1930, Serial No.
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8 Claims. (Cl. 108—7)

This application is a division of my application
Serial No. 95,820, filed March 19, 1926, which, in
turn, is a continuation of my application Serial
No. 526,329, filed December 31, 1921.

5 The invention relates to a process and machine
for coating and surfacing prepared shingles and
refers more particularly to a process and appa-
ratus in which prepared roofing in the form of
roofing units, such for example as strip shingles,
10 may be thoroughly coated and surfaced subse-
quent to their being cut into shingle units.

15 An important object of the invention is the
fact that all surfaces and edges of the strip
shingles are completely covered and that any
waste material is recovered to be recycled in the
covering of other shingles.

Figure 1 is a plan view of the apparatus.

20 Figure 2 is a side elevation with a substantial
part of the machine omitted for clearness in
showing the salient points of the invention.

25 Referring to the drawing, strip shingle blanks
cut from prepared roofing material common in
the art, such as sheets of unsaturated felt or
sheets of saturated felt which have been coated
with asphalt and surfaced with crushed slate or
other crushed mineral material, are introduced
between the rolls 1 and 2, being engaged by the
upper roll by lugs 3 positioned thereon in a man-
ner to register with the cut-out portions 4 of the
30 strip shingles 5. A central guide 6 in the center
of the upper roll 1 serves to properly feed the
shingle units and to prevent their lateral dis-
placement as they progress onto the endless belt
7 which may be made of any suitable material.

35 The strip shingles as they are fed between the
rolls are coated over all their surfaces and edges
with a molten bituminous mastic substance, such
as asphalt, or other waterproofing substances
which are ordinarily used to coat prepared roof-
ing. The asphaltic coating substance is main-
40 tained in a tank 8 which is positioned over the
rolls so that the heated asphaltic coating in a
fluid or semi-fluid condition flows down through
the funnel-like spouts 9 and collects behind a
doctor knife 10 which serves to spread the water-
45 proofing substance evenly over the surface of the
roll so that it will be uniformly fed as a coating
substance onto a strip shingle. It also prevents
the collection of accumulations of the waterproof-
ing substance on the upper roll. Any excess
50 waterproofing substance will be carried off into
the lower pan or container which is situated below
the lower roll. The endless belt 7 runs over a
plurality of spools 12 and passes under a hopper
55 13 and between pressure rolls 14 and 15, the

strip shingles after being coated, while passing
between the rolls 1 and 2, progress with the belt
until they reach a position beneath the hopper
13. This hopper contains granular surfacing ma-
terial, such as ground slate, which is fed onto the
5 adhesive coating on the upper surface and all the
edges of the shingle, the excess surfacing col-
lecting upon the belt. The shingles then pass on
between the pressure rolls 14 and 15 where the
surfacing material is pressed into the coating to
10 form the completed product.

After leaving the pressure rolls, the shingles
leave the endless belt and pass onto a receiving
belt 16 which conveys them to a refrigerator.
Beneath the end of the endless belt 7 is a pan or
15 hopper, as shown at 17, in which collects the ex-
cess surfacing material which is deposited upon
the belt during its passage under the hopper 13.
At 18 is situated a cleaning brush which is ro-
tated in a manner to thoroughly clean the sur-
20 face of the belt prior to its return to receive the
coated shingles from the rolls 1 and 2.

The driving mechanism of the respective rolls
and spools for running the belts has been pur-
25 posely omitted as it forms no part of the inven-
tion. It is understood, however, that the rolls
must be operated at relative speed so that the
strip shingles will be properly fed and progressed
at a uniform rate through the process of coating
and surfacing.

30 In this manner, strip shingles which have been
cut from the initial sheet may be readily coated
and surfaced, all portions of the shingle unit re-
ceiving a complete coating of the mastic, an
outer layer of crushed slate being partially em-
35 bedded in the coating on one face and the edge
of each shingle. The lugs 3 on the roll 1 in reg-
istering with the cut-out portions of the shingle
units keep the cut-out portions free of excess
coating material which would tend to collect and
40 form a web across the cut-outs as the strip
shingles pass through the initial coating stage.
The lugs, being covered with coating material
from the container 8 and being somewhat smaller
than the cut-outs, carry sufficient coating mate-
45 rial into the cut-outs to coat their edges thor-
oughly. The films of coating material on the
rolls 2, 3 meet around the outer edge of the
shingle and thus complete the encasing of the
unit with an envelope of coating material over
50 its entire surface, and this coating is surfaced
with the slate or other grit.

I claim:

1. A roofing element comprising a felted fi-
brous base of sheet material cut to desired size 55

and shape, a sealing coat of waterproofing material overlying both faces and all the edges of the element, and a masking layer of grit partially embedded in the coating on the surface and edges of the element which are exposed to the weather when the element is laid on a roof.

2. An individual shingle unit to be used for building construction cut from prepared roofing and having butt and adjacent side edges and being provided with vertical slots to provide shingle simulating tabs and a continuous protective bituminous coating covering at least the exposed portion of the upper face and the exposed butt and side edges and the edges of said slotted portions of the unit and a coating of comminuted grit applied to the upper face of said exposed butt and side edges.

3. A shingle strip having slots forming tab defining elements, said slots extending upwardly from the butt edge toward the head thereof, said strip being provided with an asphalt coating, a layer of grit embedded therein, a second layer of asphalt coating disposed thereon and covering at least a portion of the exposed upper face thereof and extending above the terminals of said slots, and a second layer of grit applied thereto and embedded therein, said second layer of grit covering at least a portion of the upper face of the shingle.

4. A shingle strip having slots forming tab defining elements, said slots extending upwardly from the butt edge toward the head thereof, said strip being provided with an asphalt coating, a second layer of asphalt coating disposed thereon covering at least a portion of the exposed face thereof and extending above the terminals of said slots, and a layer of grit applied to the upper face of the uppermost layer of asphalt and covering at least the exposed upper face of said shingle.

5. A roofing element comprising a felt fibrous base of sheet material cut to the desired

size and shape, a sealing coat of waterproof material overlying both faces and the exposed butt and side edges of the element, and a masking layer of grit partially embedded in the coating on the surface and said edges of the element, at least, which are exposed to the weather when the element is laid upon the roof.

6. A shingle strip having slots forming tab defining elements, said slots extending upwardly from the butt edge toward the head thereof, said strip being provided with an asphalt coating, a layer of grit embedded therein, a second layer of asphalt coating disposed thereon and covering at least a portion of the exposed upper face and the butt and side edges thereof and extending above the terminals of said slots, and a second layer of grit applied thereto and also covering at least a portion of the exposed face.

7. A roofing element comprising a felt fibrous base of sheet material cut to the desired size and shape, a sealing coat of waterproofing material covering at least the exposed face of said element, a masking layer of grit partially imbedded in the coating on the surface of said element, at least, which is exposed to weather when the element is laid upon the roof, and means to seal both the exposed butt and side edges of said element, said means comprising a sealing coat of waterproofing material.

8. A shingle comprising a felted fibrous base of sheet material provided with an asphalt coating, a layer of grit imbedded therein, a second layer of asphalt coating disposed thereon and covering all of the upper surface of said shingle which is exposed and at least a portion of the upper surface which is overlapped when the shingle is laid with others in overlapping courses and a second layer of grit applied thereto and imbedded therein, said second layer of grit covering at least a portion of the upper face of the shingle.

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