No. 881,023. PATENTED MAR. 3, 1908.

F. C. OVERBURY.

APPARATUS FOR MAKING SERRATED ROOFING STRIPS.

APPLICATION FILED MAR. 18, 1907.

FIG. 1.

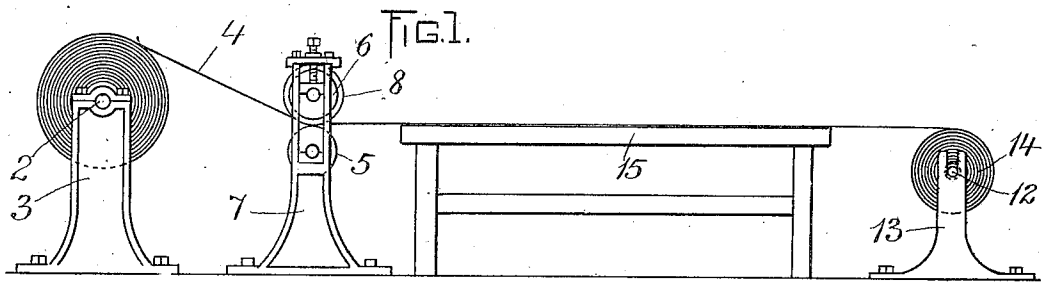


FIG. 2.

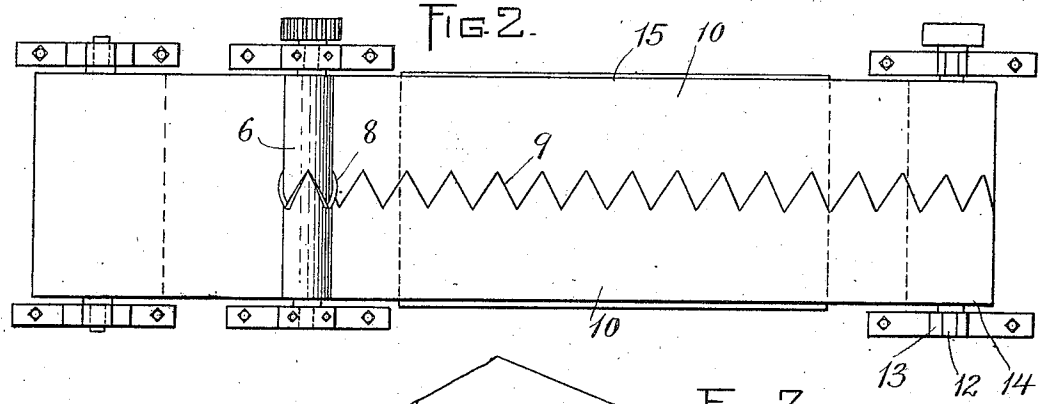


FIG. 3.

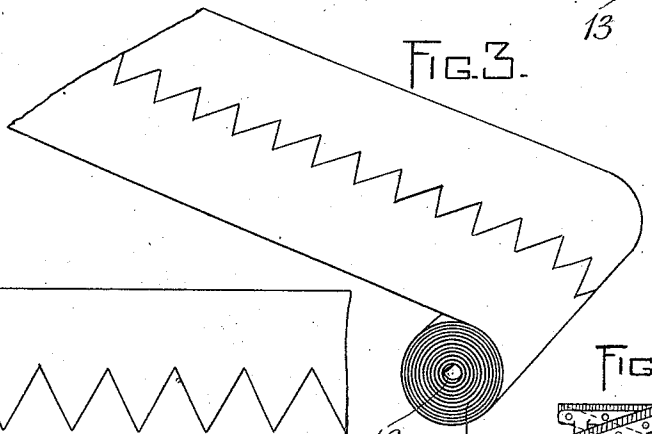


FIG. 4.

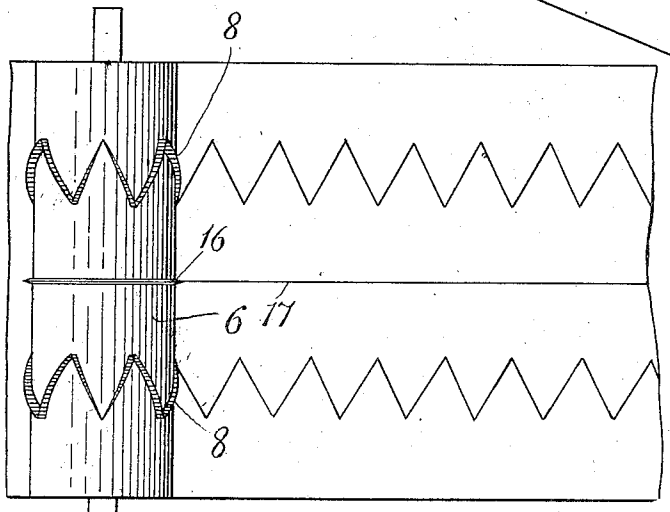
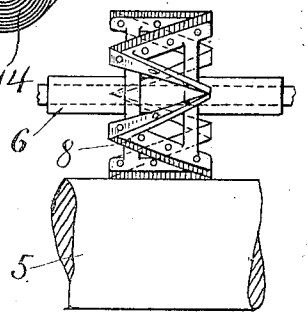


FIG. 5.



WITNESSES:

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APPARATUS FOR MAKING SERRATED ROOFING-STRIPS.

No. 881,023. Specification of Letters Patent. Patented March 3, 1908.

Application filed March 18, 1907. Serial No. 362,986.

To all whom it may concern:

Be it known that I, FREDERICK C. OVERBURY, of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Apparatus for Making Serrated Roofing-Strips, of which the following is a specification.

This invention relates to elongated roofing strips of flexible water-proof material adapted to be laid on roofs and walls of buildings, each strip having a serrated edge adapted to be laid in such manner as to give the effect of a roof or wall covered with pointed shingles, the projections of one serrated edge alternating with the projections forming the serrated edge of the next strip below it, in the manner illustrated in my application for Letters Patent of the United States, Serial No. 318,903, filed May 26, 1906.

The invention has for its object to provide means for rapidly and economically forming serrated roofing strips and for winding or packaging the same in such manner as to form a compact roll or package including a plurality of serrated strips, the serrations of each strip being interlocked with the serrations of another strip, so that the projections of each serrated edge are guarded and protected by the projections of an adjoining serrated strip.

The invention consists in the improved apparatus which I will now proceed to describe and claim.

Of the accompanying drawings, forming a part of this specification,—Figure 1 represents a side view of an apparatus embodying my invention. Fig. 2 represents a top plan view of the same. Fig. 3 represents a perspective view of a partially formed roll or package of roofing material produced by the apparatus shown in Figs. 1 and 2. Fig. 4 represents a top plan view of a portion of the apparatus, shown in Figs. 1 and 2, representing a somewhat different embodiment of the invention. Fig. 5 represents a side elevation of a different form of zigzag cutter.

The same letters of reference indicate the same parts in all the figures.

In the drawings, 2 represents a roll or mandrel journaled in bearings, supported by standards 3, the said mandrel being adapted to support a sheet 4 of suitable flexible water-proof roofing material wound in a roll upon the mandrel.

5 and 6 represent two opposed rolls journaled in bearings in suitable standards or housings 7, adjacent to the standards supporting the mandrel 2. The lower roll 5 is a bed roll, and the upper roll 6 is a cutter roll provided with a continuous zig-zag cutter 8, which is supported by a bed roll and is adapted to form a zig-zag longitudinal cut 9 in a sheet 4 passed between the rolls, suitable means being provided to exert pressure on the roll 6 and its cutters sufficient to cause the cutters to pass through the thickness of the sheet and sever it into two strips 10-10, each having a serrated edge.

12 represents a winding reel or mandrel, journaled in suitable standards 13, and adapted to wind the strips 10 10 into a roll or package 14 (Fig. 3).

15 represents a bed or table located between the pair of rolls 5 and 6 and the winding reel 12, the said bed being adapted to support the subdivided portion of the sheet passing from the said rolls to the reel and prevent the subdivisions from separating from each other after they leave the cutter, the result being that the serrations of the strips 10 10 arrive at the reel 12 and are added to the convolutions of the roll thereon without sidewise displacement relatively to each other, the projections of each serrated edge 9 remaining in interlocked engagement with the projections of the other strip 10, so that the two strips are wound as one sheet upon the reel or mandrel 12. Without some means, such as afforded by the bed or table 15, to prevent the projections from sagging loosely after being cut, there could be no certainty of the roll being formed smoothly with the projections interlocked. A compact roll or package is thus formed, the ends of which are formed by the straight outer edges forming the original margins of the sheet, while the serrations point inwardly from the ends of the roll and are interlocked with each other and thus protected so that they cannot be displaced or broken while the roll or package is in transit or storage. The strips are readily separable from each other when unrolled, each package being composed of a plurality of readily divisible serrated strips.

I have used the term "zig-zag" in characterizing the cutter 8. I desire it to be understood, however, that I do not mean by this term to limit myself to an angular cutter formed to produce the angular ser-

rations shown in Figs. 2 and 3. The cutter may be curved so as to produce a serrated edge made up of curved projections and recesses, or the projections and recesses may have any other desired form.

In Fig. 4, I show the cutter roll 6 provided with two zig-zag cutters 8 adapted to form two longitudinal zig-zag cuts in the sheet, and an intermediate circular cutter 16 adapted to form a straight longitudinal cut 17 between the said zig-zag cuts, provision being thus made for converting the sheet into four strips, each having a serrated edge and a straight edge.

I claim:—

1. An apparatus of the character stated, comprising means for supporting a rolled sheet of flexible roofing material, a reel to which the said sheet is transferable by the rotation of the reel, intermediate rolls between which the sheet passes, said rolls comprising a bed roll adapted to support the sheet, and a cutter roll having a zig-zag cutter supported by the bed roll and adapted to form a longitudinal zig-zag cut in the sheet, and means for holding the projections in the same plane and interlocked after they are cut.

2. An apparatus of the character stated, comprising means for supporting a rolled sheet of flexible roofing material, a reel to which the said sheet is transferable by the rotation of the reel, intermediate rolls between which the sheet passes, said rolls comprising a bed roll adapted to support the sheet, and a cutter roll having a zig-zag cutter supported by the bed roll and adapted to form a longitudinal zig-zag cut in the sheet, and a bed or table interposed between the said rolls and the reel, and adapted to support the subdivided portion of the sheet.

3. In an apparatus of the character stated, a bed roll adapted to support a strip of flexible material traveling over it, a cutter roll having a plurality of zig-zag cutters adapted to form a plurality of longitudinal zig-zag cuts in the sheet, means for forming a straight longitudinal cut between the said zig-zag cuts, a winding reel for the cut strip, and means for holding the cut edges of the sheet in the same plane as they pass from the cutters to the reel.

In testimony whereof I have affixed my signature, in presence of two witnesses.

FREDERICK C. OVERBURY.

Witnesses:

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