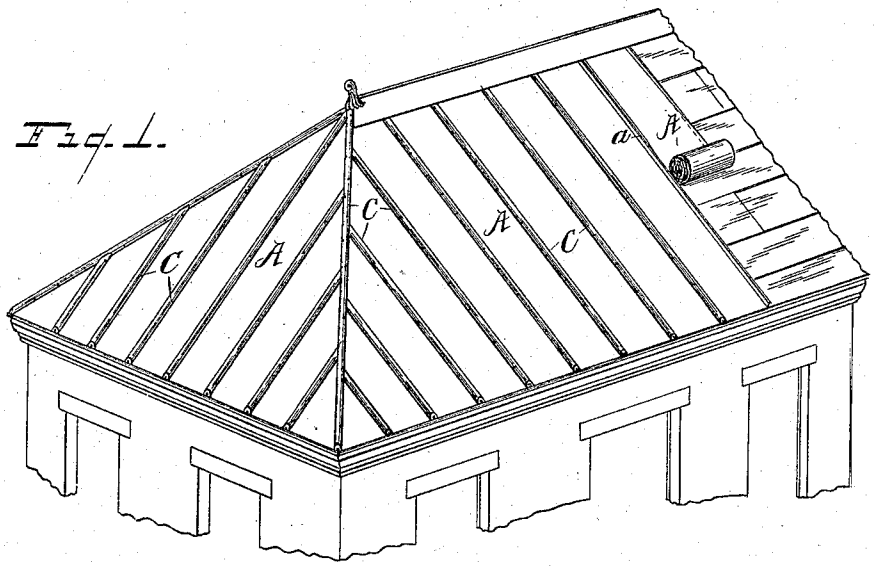
(No Model.)

C. H. DALRYMPLE.

ROOFING.

No. 533,440. Patented Feb. 5, 1895.

Fig. 1.



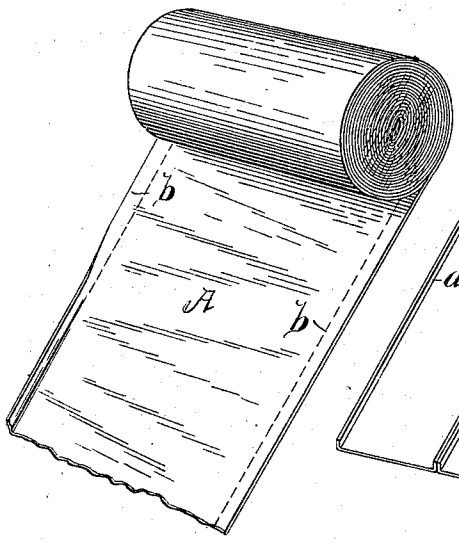
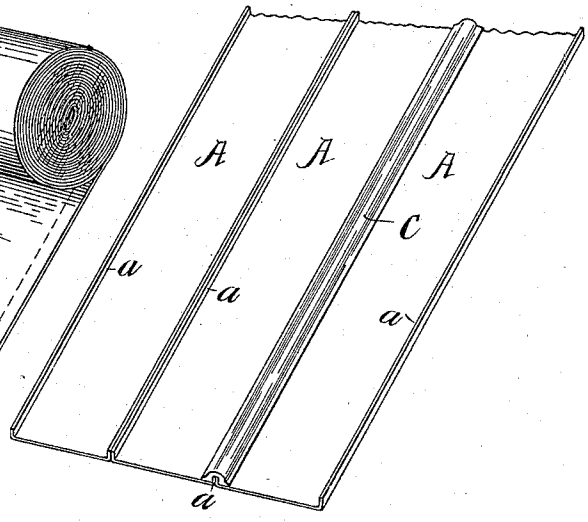


Fig. 2.



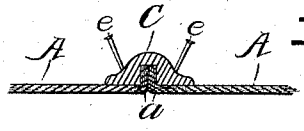


Fig. 3.

Fig. 4.

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ROOFING.

SPECIFICATION forming part of Letters Patent No. 533,440, dated February 5, 1895.

Application filed June 9, 1894. Serial No. 514,004. (No specimens.)

To all whom it may concern:

Be it known that I, CHARLES H. DALRYMPLE, a citizen of the United States, residing at Detroit, in the county of Wayne, State of Michigan, have invented certain new and useful Improvements in Roofing; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to roofing; and it consists in a novel process for treating sulphite wood-fiber, as well as in the new article so produced and which is particularly useful for roofing.

The following specification describes the process and the product, and it also describes one manner of applying this improved roofing, as shown in the accompanying drawings, in which—

Figure 1 is a perspective view of a portion of a roof provided with my roofing. Fig. 2 is an enlarged perspective view showing a sheet or strip of the roofing rolled. Fig. 3 is an enlarged perspective view of a series of the strips of roofing as in position upon the roof. Fig. 4 is a cross section through the strips of roofing and the batten covering the joint between said strips.

The first step of my improved process consists in cutting wood into small blocks or pieces, and then grinding the latter in a solution of sulphites to produce a pulp. Said pulp is then passed through heating and compressing rollers, from which it issues in a thin sheet of tough fiber, usually known as a "bat," whereof the material is known as "sulphite wood-fiber." However, any other equivalent method of producing this sulphite wood-fiber may be employed without departing from the spirit of my invention.

The second step of my process consists in dissolving india rubber in naphtha, preferably by cutting the rubber into small pieces and mixing it with the naphtha by agitation in the presence of heat, as by placing the rubber and naphtha in a vessel which latter is immersed in boiling water and agitated until the rubber dissolves. About one ounce of the dissolved rubber is then introduced into a gallon of oil, and a suitable pigment may be added at this time if desired although it forms no part of the present invention.

The third step of my process consists in passing a sheet or bat of sulphite wood-fiber slowly through the solution thus formed until it becomes thoroughly saturated therewith, and from this solution the bat is passed through rollers that will remove any excessive quantities of the solution from the surface of the bat, after which the latter is permitted to dry, and is then ready for use.

Repeated experiment has proven that the composition thus produced is very cheaply, easily, and quickly made, is excessively flexible and durable, is entirely water-proof since the wood-fiber is saturated with an impervious solution, and is protected both exteriorly and interiorly from the deteriorating effects of water and air. The toughness and flexibility of the material also render it highly superior for roofing purposes, as it will yield when trod upon rather than become punctured or torn, and as it may be readily applied to the roof boards in any suitable way—one of which I will now describe.

Referring to the said drawings, the letter A designates in Fig. 2 a roll of this material whose longitudinal edges are creased or folded as at *b*, so that they may be turned up as seen at *a* in Fig. 4; and C is a batten or strip provided with a longitudinal groove in its under face which receives said turned-up edges as clearly indicated. Nails or screws *e* may then be driven through the batten and material into the roof timbers or boards; and the latter will present the appearance best seen in Fig. 1. Although I do not limit myself to this particular form of joint or manner of clamping the edges of the strips together, it will be observed that it makes a simple and durable joint between the meeting edges of the strips, and one that is absolutely water-proof because the rain will be shed away from the juncture of the strips and the edges of the latter are sufficiently turned up so that any water which might enter under the batten would not pass between said edges *a*.

Having thus fully set forth my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The herein described roofing material, the same consisting of a bat of sulphite wood-fiber formed into strips and soaked in a solution of dissolved rubber and oil in about the proportions specified and substantially as hereinbefore set forth.

2. The herein described process of treating sulphite wood-fiber, the same consisting in dissolving rubber in naphtha, then mixing about one ounce of the dissolved rubber with a gallon of oil, then passing the wood fiber through such solution, then passing it between rollers, and finally drying it, as and for the purposes hereinbefore set forth.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES H. DALRYMPLE.

Witnesses:
E. S. WHEELER,
E. K. ROEMER.