

**Improvement in Slate Roofing.**

The many advantages combined by slate, as a material for roofing, makes it infinitely superior to the various substitutes now in general use. The ordinary method of laying it has, however, confined its use to steep roofs, and has been attended with serious disadvantages, the principal of which are, the breaking and splitting of the slate in winter caused by the formation of ice in the interstices, and the liability of the slate being loosened and blown away in stormy weather.

The idea of laying slate without lapping, and upon flat roofs, or those with a moderate pitch, has occurred to the minds of many men, and efforts have been made to put the idea into practice, but the difficulties in the way have not hitherto been fully surmounted.

Slate has been laid without lapping the slabs, in cement, forming water-tight joints, but inelastic or

This valuable invention is protected by two patents secured through the Scientific American Patent Agency—one dated February 26, and the second, May 21, 1861, and parties wishing to obtain further and more particular information in relation it can do so by calling upon or addressing the patentee, J. S. Sammons, 229 Broadway (New York Central R. R. office), New York.

The inventor of this roofing has also produced an ingenious machine for dressing the slate, which will be noticed in a future number of this paper.

**ALLEN'S CLOTHES DRYER.**

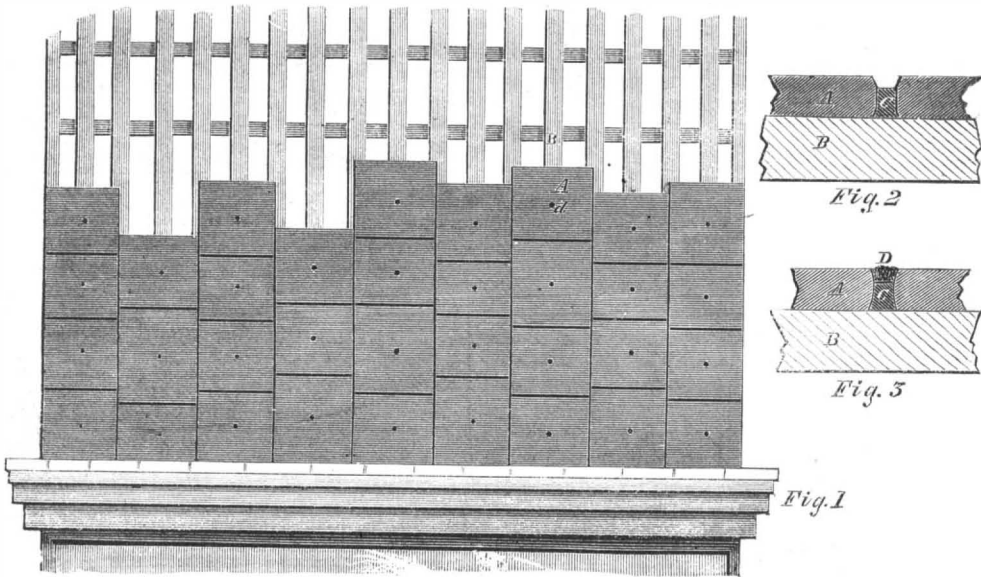
Of all the clothes dryers that have been invented, the one here illustrated is one of the simplest, most compact and most convenient. A post is set firmly in the ground, and four or more arms extend from it at an inclination upward; between these arms are

heavy sheets, which is ordinarily so fatiguing. As the frame is blown around by the wind, this motion also hastens the drying of the clothes.

We have had this dryer in use in our families for some time, and it gives the most perfect satisfaction.

The patent for this invention was granted, through the Scientific American Patent Agency, Sept. 11, 1860, and further information in relation to it may be obtained by addressing the inventor, O. P. Allen, at Rindge, N. H.

To KEEP BUTTER SWEET.—D. E. Smith contributes to the *American Agriculturist* the following directions for preserving butter in good condition for any length of time:—"In May or June when butter is plenty, work it thoroughly two or three times, and add at the last working nearly one grain of saltpeter and a tablespoonful of pulverized loaf sugar to each pound of butter. Pack it tightly in stone jars to within two inches of the top, and fill the remaining space with strong brine. Cover the jars tightly, and bury them in the cellar bottom, where the butter will keep unhurt for a long time."



**SAMMONS' ELASTIC JOINT SLATE ROOF.**

unyielding, and consequently, on the sagging or settling of the roof, which soon occurs, the joints crack or batter the cement, causing the roof to leak.

We now, however, have the satisfaction of illustrating an important improvement in slate roofing, by which all these difficulties are practically obviated. The slabs, A, which are not necessarily limited to any particular size or thickness, are dressed with parallel sides and ends, the edges being beveled at the top and bottom, and a hole drilled through the center of each, which is countersunk so as to allow the insertion of a screw, for the purpose of fastening them to the roofing plank. The slabs are connected together by elastic joints, formed of materials that will yield to the sagging of the roof, without rendering it any the less water-proof. The lower parts of these joints are made of strips of vulcanized india rubber, C, which are introduced between the slabs and made to adhere to the edges of the slate by a solution of rubber. The remaining space above the rubber is filled with an indissoluble cement, D, and coated with sand, which finishes the joint.

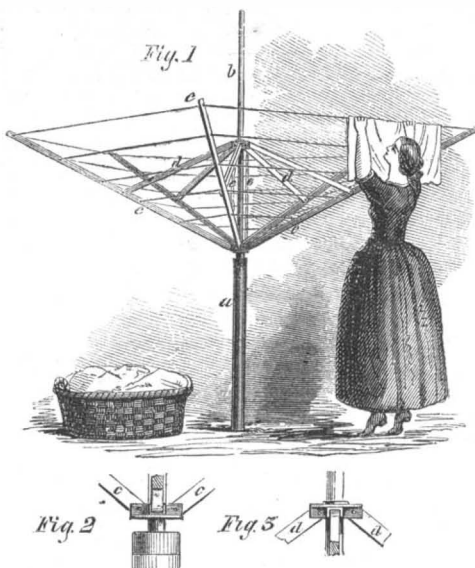
The cement does not destroy the elasticity of the joint, and is designed to protect the rubber from the effects of the weather. The heads of the screws, which sink far enough into the countersinks of the slabs to permit of it, are also protected by a coating of the cement. The roofing planks or strips upon which the slates are to be laid may be separated, as shown in the engraving, one fourth the width of the slate, thereby saving one half the lumber ordinarily used.

The materials of which this roof is formed, taken in connection with the method of laying it, afford a sufficient guarantee of its durability.

It is believed by men most familiar with vulcanized india rubber, that it will last in the joints of this roof, protected in the manner which it is, as long as the slate. A roof of this description does not stand in constant need of painting and repairing to preserve it and keep it water-proof, as is the case with all kinds of metal roofs. It seems to us that when its merits are fully known, it must come into general use where slate can be obtained, and prove a rich prize to the inventor.

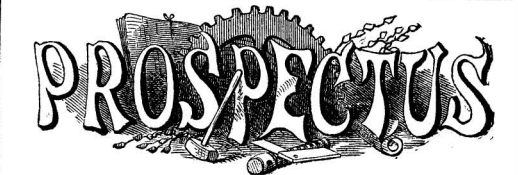
stretched the lines on which the clothes are hung. This invention relates to improvements in the mode of arranging and bracing the several parts.

In the cut, Fig. 1 is a perspective view of the apparatus, and the other figures represent some of the parts on a larger scale. The post, a, is set sufficiently deep in the ground to stand firmly, and the smaller shaft, b, is inserted into its upper end so as to form a shoulder at the junction. A collar, with projecting ears as represented in Fig. 2, rests upon the shoulder of the post, surrounding the shaft, b, and supporting



the arms, c c. Braces, d d, extend from near the middle of the arms, c c, to a second collar surrounding the shaft, b, represented in Fig. 2. Lines, e e, connect the two collars, and by tightening these lines so as to draw the two collars together, the arms, c c, are pressed outward, and the lines connecting them are stretched taut.

As the whole fabric of arms and braces turns freely around the central post, steps may be placed at one side of the apparatus, and the clothes hung upon the lines without the hard work of reaching upwards with



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