Feb. 7, 1928.

1,658,591

R. DORN

BUILDING ROOF

Filed March 1, 1926

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Fig. 1

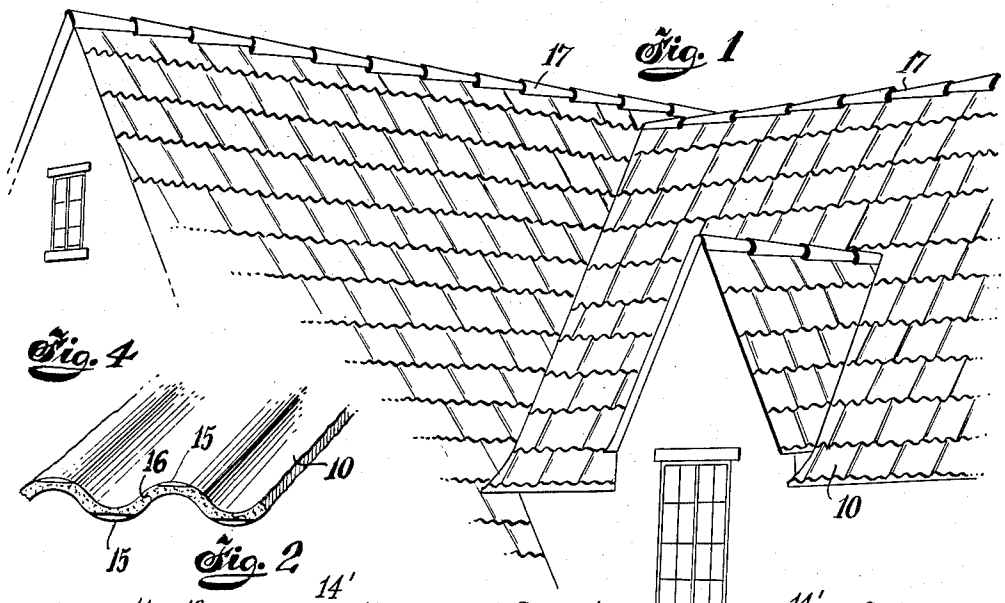


Fig. 4

Fig. 2

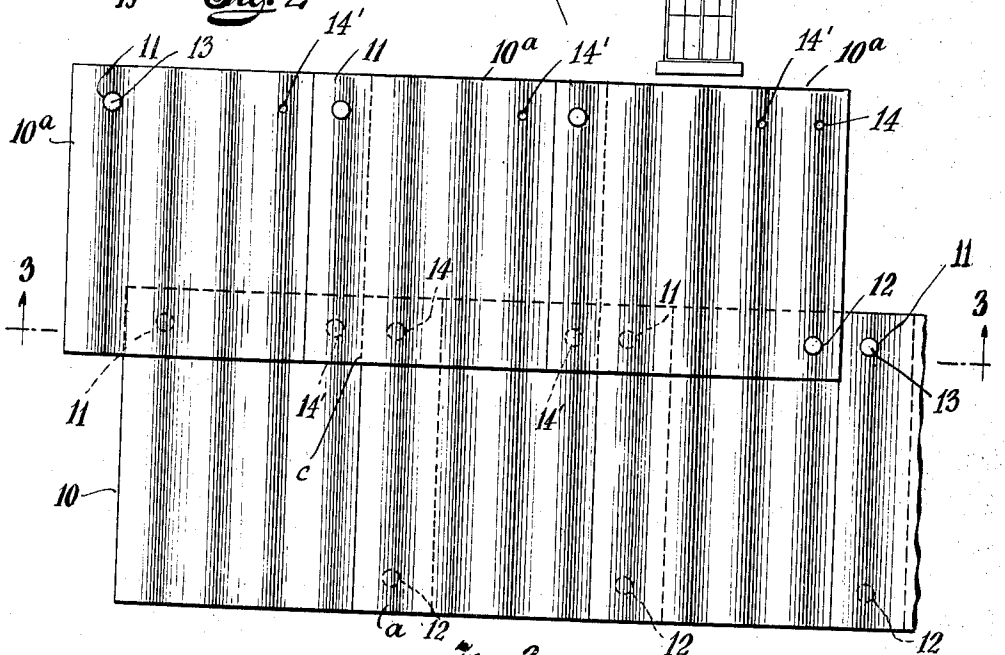
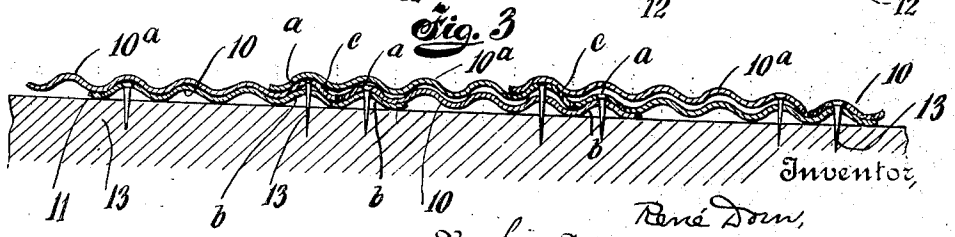


Fig. 3



Inventor,
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By his Attorney,
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Fig. 5

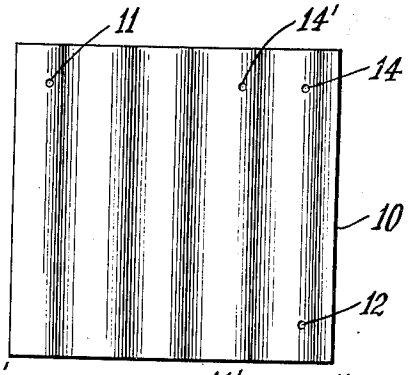
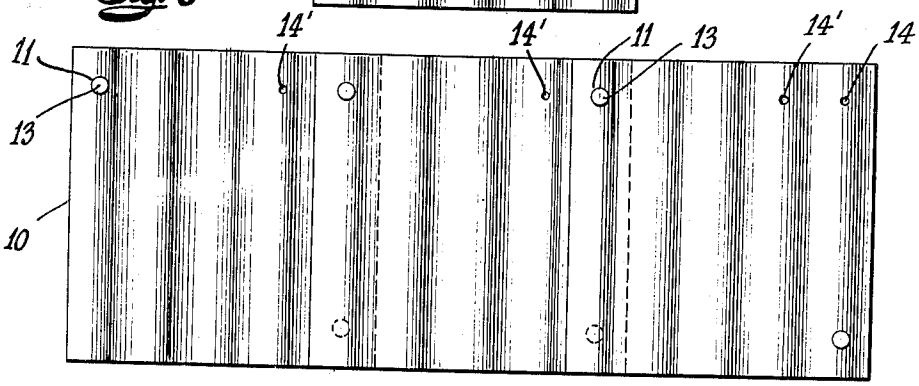


Fig. 6



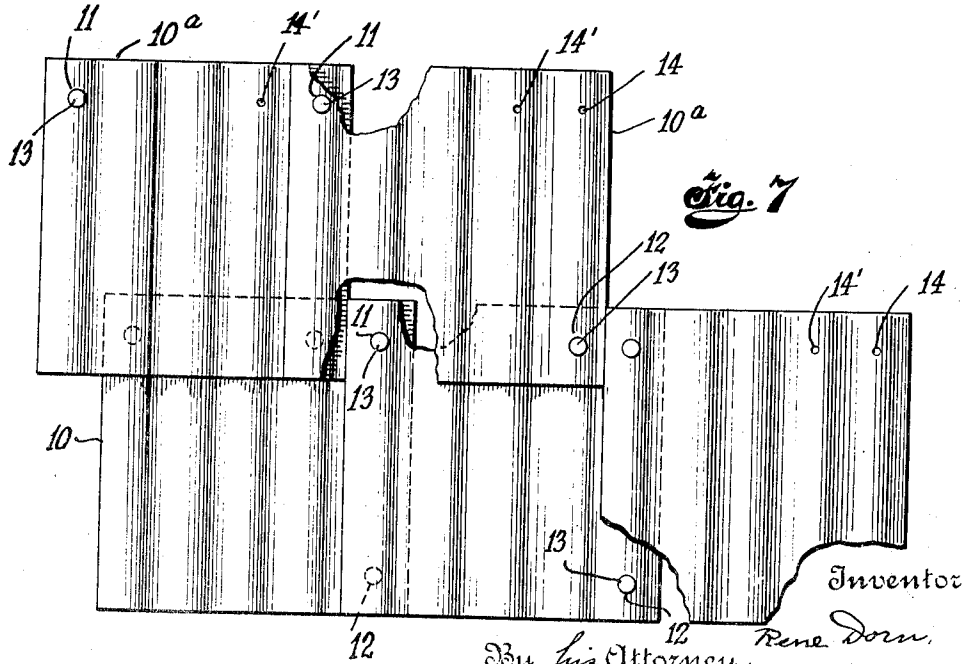


Fig. 7

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Patented Feb. 7, 1928. 1,658,591

UNITED STATES PATENT OFFICE.

RENÉ DORN, OF NEW YORK, N. Y.

BUILDING ROOF.

Application filed March 1, 1926. Serial No. 91,435.

My invention relates to improvements in building roofs, and more particularly to pitched roofs of various kinds. The object of the invention is to produce a relatively inexpensive tile roof which utilizes the principle of the corrugated sheathing, is less expensive than the heavy clay tiles, and makes a permanent, weather-proof and fire-proof roof, and at the same time is exceedingly handsome. It is recognized that generally, in building, the roof is an extremely important part, and can be made one of the handsomest parts of the structure, and my invention has in mind the production of a handsome roof as well as to make a roof which is tight, durable, weather-proof and fire-proof, and easily laid. Asbestos-cement corrugated roofing is generally made from Portland cement having more or less asbestos fibre incorporated with it, and is commonly laid in long sheets or slabs which, for residences, would be rather unsightly. My improvement comprises making slabs of this general character but in short lengths forming tiles, and perforating these tiles in such a manner that they can be securely and readily fastened to the deck or support, and will have all the fastenings concealed and covered in such a way as not to be subject to the action of the weather and as not to mar the appearance of the roof. These tiles can be laid in shingle fashion, and the exposed lower portions can be shaped as desired to suit the fancy of the maker. Furthermore, in producing these shorter lengths, I form or break the long slabs into the shorter tiles in such a way as to produce rugged lines which satisfy the aesthetic sense, and produce a much better light and shade effect than would be the case if there were smooth mechanical cuts or end formations. Furthermore, my invention contemplates piercing the tiles in such places as to greatly facilitate laying them, and in having the holes at the crests of the corrugations where the drainage will naturally be away from the fastenings, thus keeping them dry and not subject to rust. In many such structures the nails are placed so that the dampness reaches them, rust follows, and the adjacent and lower portions of the roof are badly discolored. These and other advantages of my improved roof will appear more clearly from the description which follows.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar reference characters indicate corresponding parts in all the views.

Figure 1 is a broken perspective view of a roof embodying my invention.

Figure 2 is a broken plan view illustrating the manner of laying the tiles.

Figure 3 is a cross section on the line 3—3 of Figure 2.

Figure 4 is a broken detail perspective showing the means of making the rough ends of the tiles.

Figure 5 is a detail plan view of a single tile.

Figure 6 is a plan view showing several tiles in a row and the manner in which they are laid, and

Figure 7 is a broken plan illustrating a further step in laying a roof.

The roof embodying my invention is made of tiles 10 which are rectangular and nearly square by preference, although the lower or projecting edges may be scalloped or designed to suit the taste. Each tile 10 is provided with a nail hole 11 near the upper left hand corner as viewed in Figure 5, and a nail hole 12 near the lower right hand corner. It is also provided with holes 14 and 14′ near the upper edge, the hole 14 being through the same corrugation as the hole 12, and the hole 14′ being through the next corrugation to the left. It will be noticed that these nail holes are adapted to receive fastening nails 13, and that they are all made through the crests of the corrugations, so that when the tile is laid and a nail 13 driven through any hole, the nail head will be at the crest of the corrugations and any water that might otherwise reach the nail head will drain from it so as to prevent corrosion and discoloration as above noted.

I prefer to have the tiles with rugged ends, and especially with a rugged or rough lower end, as this is the only edge that shows after the tile is laid, and gives a much better and more aesthetic effect than if a smooth mechanical cut were made. To this end a long slab of the material is cut on opposite sides slightly at the crests of the corrugations, as shown at 15 in Figure 4, and then broken. In breaking, the cleavage will follow the cuts 15, but the main end portion will appear rough as shown at 16 in Figure 4, and when laid on a roof, the parts 15 will not show.

When the roof is completed it can be covered at the highest point or ridge pole with caps 17 or the like as usual.

The tiles are laid in the general manner of laying shingles to form a roof, that is they are arranged to break joints, and laid in rows from bottom to top, and it is better to work from left to right. In Figures 2 and 3 I have shown how each row is laid. A tile 10 is fastened in place at the left hand of the row by nails 13 which are driven only through the holes 11 and 12. The next tile to the right is then laid with its left hand corrugation "*a*" overlapping and nested upon the right hand corrugation "*b*" of the first tile. This brings the hole 11 of the second tile in registry with the hole 14 of the first tile. A nail is then driven through the hole 11 of the second tile and 14 of the first, and also through the hole 12 of the second tile. This operation is repeated on all the tiles in the row. When the second row 10^a of tiles is laid, the first tile to the left is made to overlap slightly the left hand tile of the first row, and is placed a little to the left of said tile, and with its right hand edge at the lower part in abutment with the left hand edge of the second tile of the first row, as shown at "*c*". This enables the parts to be laid very flat and snug, but in Figure 3 I have shown the several tiles somewhat separated, in order that their relation may be better seen. The upper left hand tile 10^a being arranged as shown with its corrugations nested upon those of the tile below, is then fastened by driving a nail 13 through the hole 11 of the left hand tile 10^a and through the hole 12 of said tile and the hole 14′ of the tile 10 below. The next tile 10^a to the left is then laid as already described with reference to the left hand tile 10^a and to the tiles below. Thus it will be seen that as the work progresses, a nail is driven through every hole in each tile, but the nails are all concealed, and the tiles by their abutting and nested relation held against any lateral displacement by the corrugations themselves, thus relieving undue strain on the nails. In this manner a very tight sound roof is made which will be as handsome as a roof made of heavy clay tiles, and will be far less expensive and much lighter. It will be of course understood that the tiles may be colored to suit the taste.

I claim:—

1. A building roof composed of approximately square corrugated tiles, each having nail holes through the extreme right and left corrugations near the upper edge, a hole aligning with said holes thru a corrugation lying second from the edge, and a hole through a side corrugation near the lower corner and in alignment with a nail hole near the upper corner, and with the tiles laid so that in one row the left hand corrugation of one tile overlaps the right hand corrugation of the next, and with the second row offset with relation to the first row, with the lower edges of the tiles of the second row overlapping the upper edges of the first, and with the side edge of one tile of the second row abutting the side edge of one tile of the first row whereby the several nail holes are brought into the right relation, and the nails therein concealed.

2. A building roof composed of approximately square tiles having rough lower edges and with a line of holes near the upper edge of each tile, two of said line of holes being located respectively in the crests of the side corrugations, and one of said holes being through the crest of a second corrugation next a side corrugation and with a fourth hole near the lower corner and through a side corrugation, whereby the several tiles can be nested, overlapped, and fastened to conceal the nails in the nail holes and expose the lower edges of the tiles.

In testimony whereof, I have signed my name to this specification this 25th day of February, 1926.

RENÉ DORN.