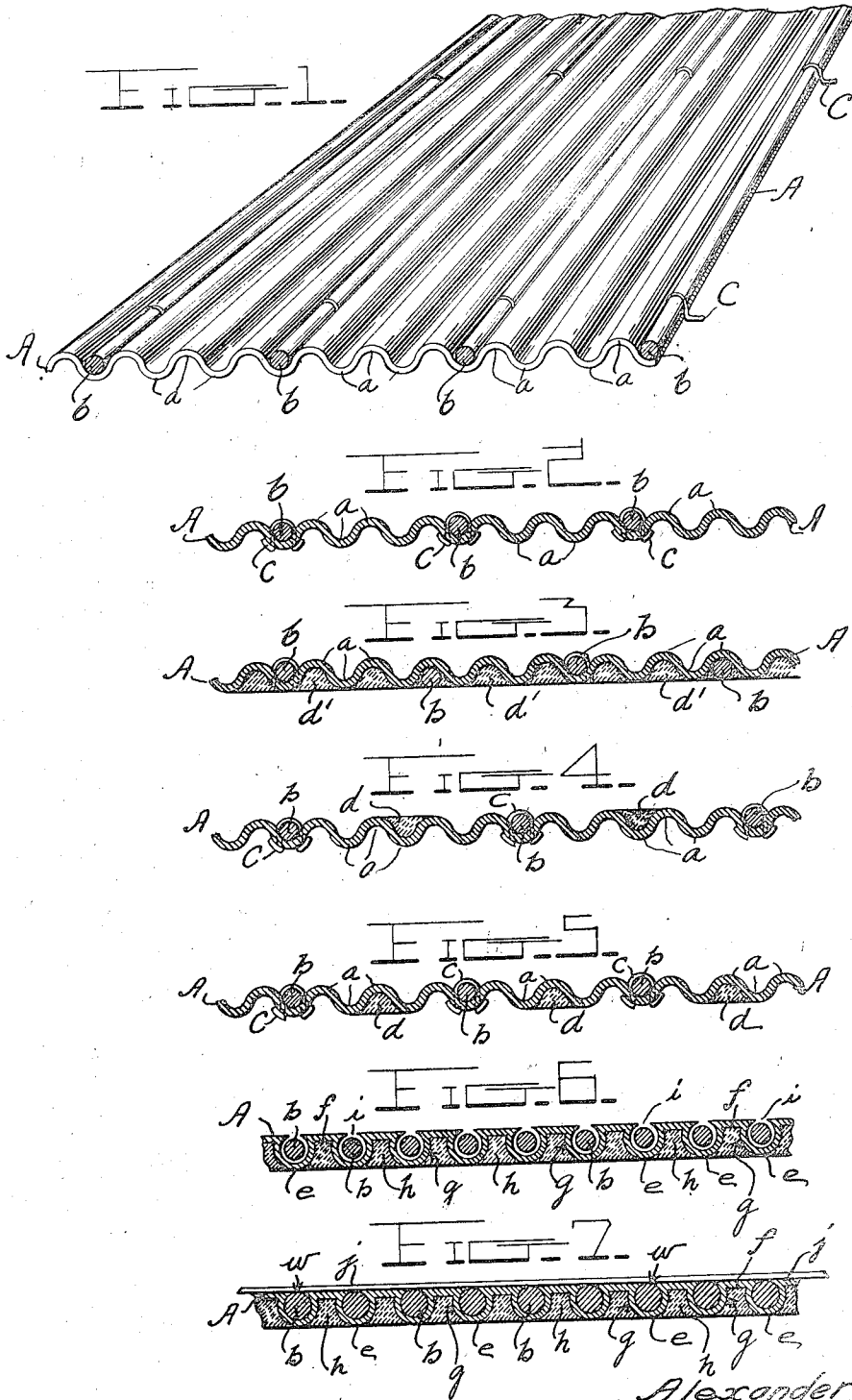


A. P. WHITE.
FIBROUS BUILDING MATERIAL.
APPLICATION FILED JAN. 3, 1914.

Patented Oct. 15, 1918.

1,281,452.



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By

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FIBROUS BUILDING MATERIAL.

1,281,452.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ALEXANDER P. WHITE, a citizen of the United States, residing at Caldwell, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Fibrous Building Material, of which the following is a specification.

This invention relates to a novel and practical construction of building material having the same general characteristics, objects, and uses as the forms of building material disclosed in and covered by my former Patents Nos. 1,049,631 dated January 7, 1913, 1,049,630 dated January 7, 1913, and 1,049,629 dated January 7, 1913, but having improved features of construction possessing special advantages.

Accordingly, the object of the present invention is to provide a new and practical construction of building material to be employed chiefly as a substitute for wooden and metal lathing and which lends itself readily for use in the capacity of a mold to temporarily give form to the plaster, while at the same time affording a substantial support for metallic members which will not only reinforce the walls but constitute permanent supporting elements therefor. Other more specific objects are to provide a building material having little expansion and contraction. Also, the improved material when used as lathing is intended to provide a multiplicity of keying seats for the plaster, and to hold the metallic members in such a way that the plaster may readily key about the same.

With these and other objects in view, the invention consists in the novel construction, combination, and arrangement of parts hereinafter more fully described, illustrated, and claimed.

For the purpose of illustrating the invention, certain practical embodiments thereof are shown in the accompanying drawings, in which—

Figure 1 is a perspective view of one form of building material embodying the present invention.

Figs. 2 to 6 inclusive are similar sectional views showing various modifications in the construction of the material.

Fig. 7 is a view similar to Fig. 6 showing another modification of the invention.

Like reference characters designate cor-

responding parts in the several figures of the drawings.

The distinguishing characteristic of the present invention is the employment of a fibrous body material having a multiplicity of corrugations. These corrugations may be of various shape, size, and extent. They may be uniform or non-uniform, and may be produced in any suitable manner, but for the purposes of illustration, the forms of the invention shown in the several figures of the drawings have corrugations of a uniform character and extending throughout the entire area of the sheet. For instance, as shown in Figs. 1 to 6 inclusive of the drawings, the fibrous body material, designated by the reference letter A, is illustrated as having a regular and continuous series of rounded corrugations *a*, and the grooves or valleys of these corrugations lend themselves admirably as casings for satisfactorily seating the metallic members or rods which constitute the main supporting and reinforcing means for the wall or ceiling.

According to the suggested embodiment in Figs. 1 and 2 of the drawings, the metallic supporting members or rods *b* are seated in the grooves of certain of the corrugations, and may be conveniently fastened to the fibrous body sheet A by staples or equivalent fastening means *c*, so that the body sheet will constitute a temporary support for holding the metallic members in position on the wall or ceiling until the plaster has set and hardened thereon. In this arrangement, all of the metallic members or rods *b* are exposed at the same side of the body sheet, but it will be obvious that this may be altered, under some conditions, by locating some of the metallic members or rods at one side of the sheet, and others at the opposite side of the sheet, as suggested in Fig. 3 of the drawings.

In addition to utilizing the grooves of any desired number of the corrugations as casings for seating the metallic members or rods, the grooves of the corrugations may also have the important function of receiving cementitious fillings which add strength and stiffness to the body sheet and may enable it to better perform its function as a support or carrier for the metallic members. This combination may be employed as shown in Fig. 4, wherein cementitious fillings *d* are placed in certain grooves of the sheet at the

same side thereof, thus forming cementitious rods and the metallic rods alternated therewith, or as shown in Fig. 5, where the metallic members and cementitious rods are alternated respectively at opposite sides of the sheet, or as shown in Fig. 3, to be further referred to.

Another special form of the invention that may be utilized in a practical manner is the one shown in Fig. 6 of the drawings, wherein the fibrous body sheet A is illustrated as being formed with corrugations of special design. These corrugations all project to one side of the plane of the sheet, but essentially consist of alternating rounded and angular elements *e* and *f*, producing an effect of the rounded elements being disposed in regular spaced relation with angular keying grooves *g* therebetween and adapted to be filled with a cementitious filling *h* which gives great strength to the material throughout and greatly stiffens the rounded elements *e*, any number of which rounded elements are adapted to receive therein the metallic members or rods *b*. Also, the said rounded elements *e* are formed with contracted or narrowed mouths or openings *i* which are narrower than the diameter or width of the metallic members or rods, so that the latter are retained in place without supplemental fastening or retaining means, while at the same time the plaster element will be admitted into the grooves within the rounded elements for locking engagement with the metallic members or rods. However, a modification of this idea is shown in Fig. 7 of the drawings, wherein a more positive and definite retention of the metallic members may be accomplished by welding or otherwise fastening thereto as at *w*, suitable cross pieces *j* of metal or equivalent material extending over one face of the body sheet. These cross pieces *j* also increase the reinforcement for the cementitious material as well as assisting in the support of the latter.

In all embodiments of the invention, the fibrous body material preferably consists of a sheet of paper such as ordinary corrugated cardboard. Also, it may be found preferable in carrying out the invention to treat the body material with any of the well known waterproofing or fireproofing compounds, but regardless of this feature it will be observed that according to the present

invention in all of its forms, a corrugated body sheet is employed and metallic members or rods are carried thereon in such a manner as to be disposed for engagement by and with the plaster as it sets and hardens, so that while it may be found desirable to do so in some cases, yet it is not necessary with this construction to break the surface of the sheet with openings or perforations, as it is in the forms of the invention disclosed in my patents aforesaid. Therefore when the rods are arranged alternately in the grooves of the sheet on opposite faces, it is important to cover the rods on the side which is not to be plastered with a covering of cementitious material *d'* to protect the rods from corrosion. This is illustrated in Fig. 3 of the drawings, in which figure the cementitious material *d'* is also shown filling the valleys of the corrugations at the under side of the sheet.

I claim:

1. A building lath consisting of a body of fibrous sheet material continuously corrugated throughout, and metallic members lying within the valleys of at least some of the corrugations and extending lengthwise thereof, said metallic members being exposed for engagement with the plaster which is applied to the lath, and holding means for retaining said metallic members within the corrugations.

2. A building lath consisting of a body of fibrous sheet material continuously corrugated throughout, metallic members fastened in the valleys of at least some of the corrugations and extending longitudinally throughout the same, and separate fillings of cementitious materials also arranged in the valleys of at least some of the corrugations not occupied by the metallic members.

3. A building lath consisting of a series of metallic members, a supporting body therefor of fibrous sheet material having alternating rounded and angular corrugations and means for holding the metallic members thereto.

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

ALEXANDER P. WHITE.

Witnesses:

EMORY L. GROFF,
MARY K. KOOGLE.