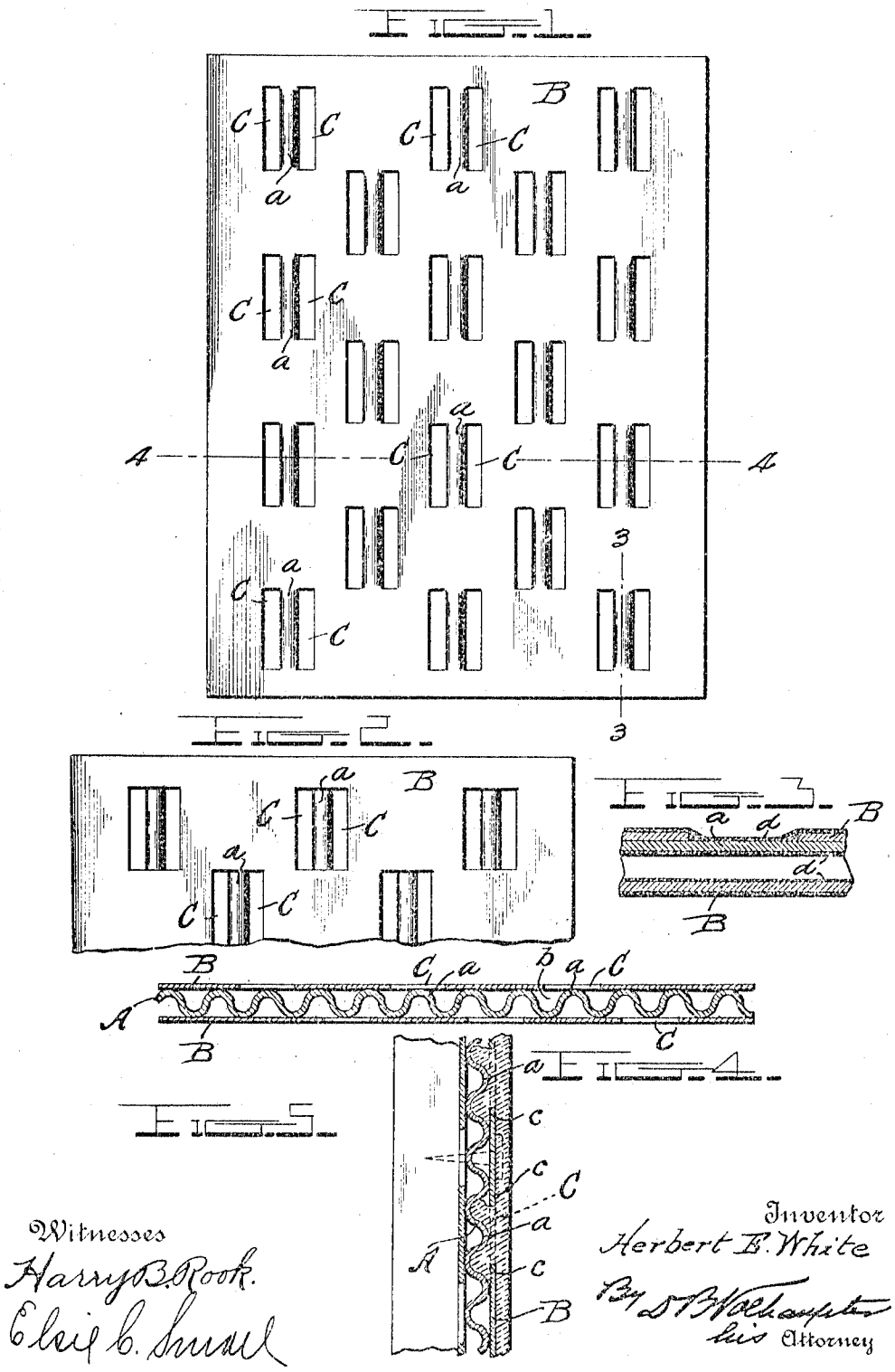
H. E. WHITE.

BUILDING MATERIAL.

APPLICATION FILED MAR. 16, 1914.

1,116,185. Patented Nov. 3, 1914.



Witnesses

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BUILDING MATERIAL.

1,116,185. Specification of Letters Patent. Patented Nov. 3, 1914.

Application filed March 16, 1914. Serial No. 825,020.

To all whom it may concern:

Be it known that I, HERBERT E. WHITE, a citizen of the United States, residing at Youngstown, in the county of Mahoning and State of Ohio, have invented certain new and useful Improvements in Building Material, of which the following is a specification.

This invention relates to a novel and practical building material for use in building construction, though available chiefly for lathing, and the object of the invention is to provide a material of this nature which shall be economical in production, easily and cheaply applied, and readily transported.

Accordingly, a general object of the invention is to provide a new and practical article which may be employed as a substitute for wooden and metal lathing and which can be plastered with a minimum quantity of plaster, while at the same time possessing the desirable quality of not swelling and warping after the manner of wood lath, nor rusting after the manner of metallic lath.

With these and other objects in view which will be apparent to those familiar with this art, the invention consists in the novel construction, combination, and arrangement of parts hereinafter more fully described, illustrated, and claimed.

For the purposes of illustration, a preferable embodiment of the invention is shown in the accompanying drawings, in which—

Figure 1 is a plan view of a sheet of building material constructed in accordance with the present invention. Fig. 2 is fragmentary plan view of a piece of the improved building material illustrating the superficial characteristic thereof prior to its treatment with an artificial stone or equivalent composition which covers and protects the edges of the paper facing sheets. Fig. 3 is an enlarged sectional view on the line 3—3 of Fig. 1, exaggerating the thickness of the sheets and of the coatings. Fig. 4 is a cross sectional view of the new product on the line 4—4 of Fig. 1. Fig. 5 is a sectional view illustrating a section of the new material fastened to furring or studding and showing a plaster surface applied thereto and interlocked within and behind the key openings which are disposed adjacent the longitudinal plane of the ridges of the corrugations.

Like reference characters designate corresponding parts in the several figures of the drawings.

A distinguishing characteristic of the present invention is that of providing a paper body so constructed and reinforced as to have the requisite strength and stiffness to provide an economical and durable form of building material possessing special utility as a substitute for wooden and metal laths. Accordingly, the new material claimed herein primarily includes a sheet of fibrous corrugated body material A 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 form of the invention shown in the drawings has corrugations of a uniform character and extending throughout the entire area of the sheet, these corrugations consisting of a regular series of alternating ridges *a* and intervening valleys *b*.

In addition to the stiffening and reinforcing effect produced by the corrugated formation of the body sheet A, the latter has combined therewith the stiffening facing sheets B—B arranged upon opposite sides thereof and coextensive in area therewith. These facing sheets are of paper or equivalent fibrous material and are glued or otherwise suitably fastened to the body sheet so that they will have a fastened union with the ridges *a* of the corrugations, and thus become a permanent part of the body material and contribute materially to the stiffness, reinforcement, and durability of the product.

A novel feature of the present invention resides in the provision of practical and effective means for keying the plaster or other cementitious substance to the paper lath. This is accomplished by breaking up the facing sheet B—B into a number of key openings C arranged in longitudinal rows with the key openings in each row disposed adjacent to and exposing sections of one of the ridges *a* of the corrugated sheet A. That is to say, there are a series of longitudinal rows of key openings C, and the key openings of adjacent rows in each sheet B are disposed in alternating or staggered relation. The key openings in one sheet B are preferably in different longitudinal planes

so as to provide a maximum number of the key openings, and at the same time only exposing sections of the ridges *a* through such openings. Accordingly, it will be observed, particularly by reference to Fig. 1 of the drawings, that each longitudinal row of the key openings C is intersected by one of the longitudinal ridges *a* of the corrugations, thereby exposing several sections of this ridge respectively at the different key openings in the same row of the latter, and with the said key openings disposed upon both sides of the ridge so as to be in communication with the valleys *b* upon both sides of the said ridge. It is by reason of this construction that each keying unit consisting of a section of the ridge *a* and openings upon both sides thereof, provides means whereby the plaster or other cementitious substance fills through said openings over the corrugation ridge *a*, into the adjacent valleys *b*, and behind the projecting edges *c*, of the key openings, as shown in Fig. 5 of the drawings. This secures a most effectual keying of the plaster to the paper lath, and by reason of the great number of keying units or keying points, of a similar character, an effective and uniform tie is provided between the plaster and the paper lath.

It is preferable in carrying out the invention to treat the paper body, consisting of the corrugated sheet A and the facing sheets B—B to a compound that will add to the stiffness and strength of the article, as well as impart waterproofing and fire-resisting characteristics thereto. The corrugated formation of the sheet A and the many openings C in both facing sheets thereof render the product specially adaptable to a bath of such compound which is thus permitted to enter all of the corrugations, as well as to coat both the outer and inner faces of the facing sheets and to cover all edges of material, particularly the edges of the key openings. This prevents moisture from entering the fibrous sheets at the edges, with the result of starting deterioration thereof, particularly swelling and warping. An artificial stone compound may be employed for this purpose, an example of which will be a solution of silicate of soda, infusorial earth, and oxid of zinc, or a waterproofing and fire-resisting compound that could be utilized with good result is one consisting of a mixture of silicate of soda and asphaltum or oxid of iron. The manner in which the stiffening and protective compound provides a well defined superficial coating throughout the product is shown in Fig. 3 of the drawings, the compound coating being designated by the reference letter *d*.

I claim:

1. A building lath consisting of a corrugated body sheet of fibrous material, and a facing sheet united thereto and provided with key openings intersected by ridges of the corrugations.

2. A building lath consisting of a corrugated body sheet of fibrous material, and a facing sheet of like material united thereto and provided with longitudinal rows of key openings piercing the sheet adjacent ridges of the corrugations.

3. A building lath consisting of a corrugated body sheet of fibrous material, and facing sheets of like material united to opposite sides of the body sheet and provided with longitudinal rows of key openings exposing portions of the ridges of the corrugations and communicating with the valleys at both sides of the ridges.

4. A building lath consisting of a body formed of a corrugated sheet of fibrous material, and facing sheets of like material provided with key openings therein, said body having a protective external and internal waterproofing and fireproofing coating.

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

HERBERT E. WHITE.

Witnesses:
R. M. Bell,
O. D. Kaiser.