

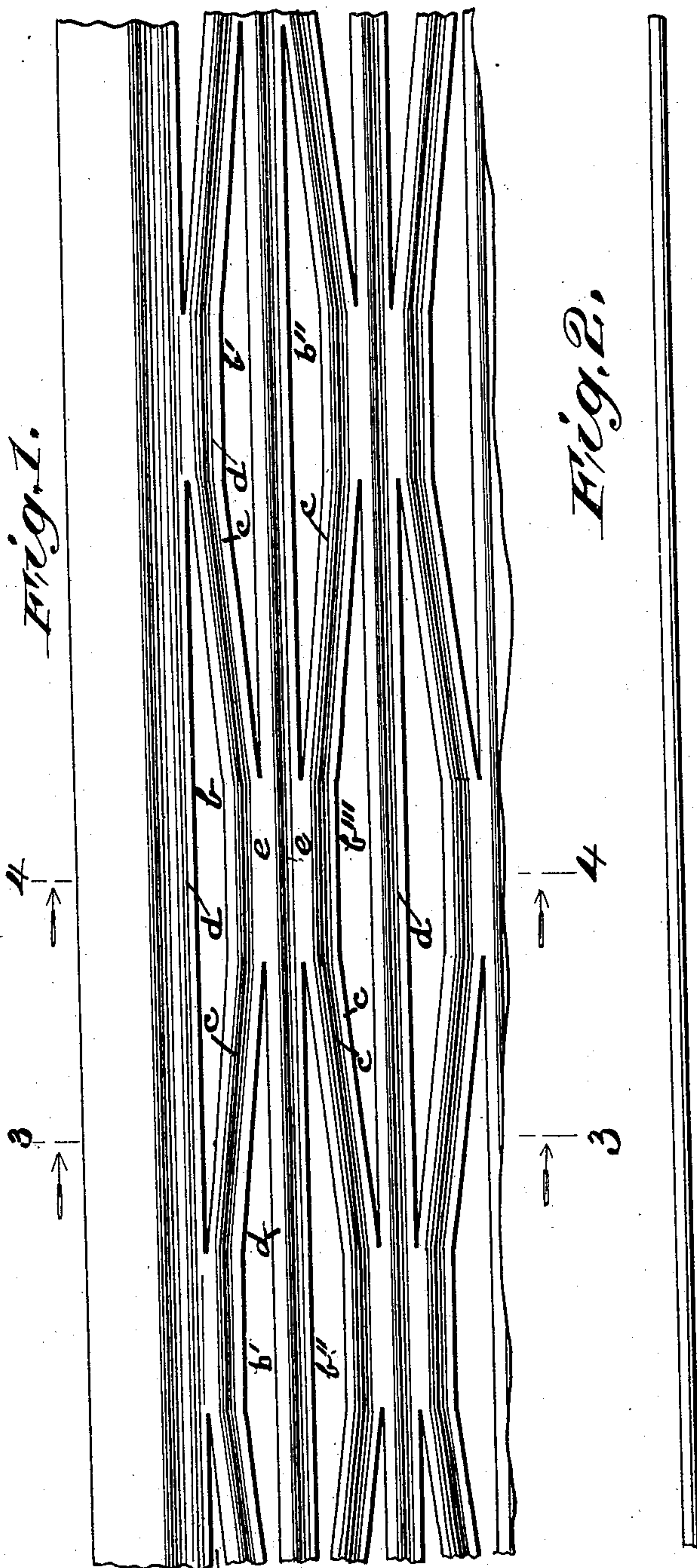
No. 668,668.

Patented Feb. 26, 1901.

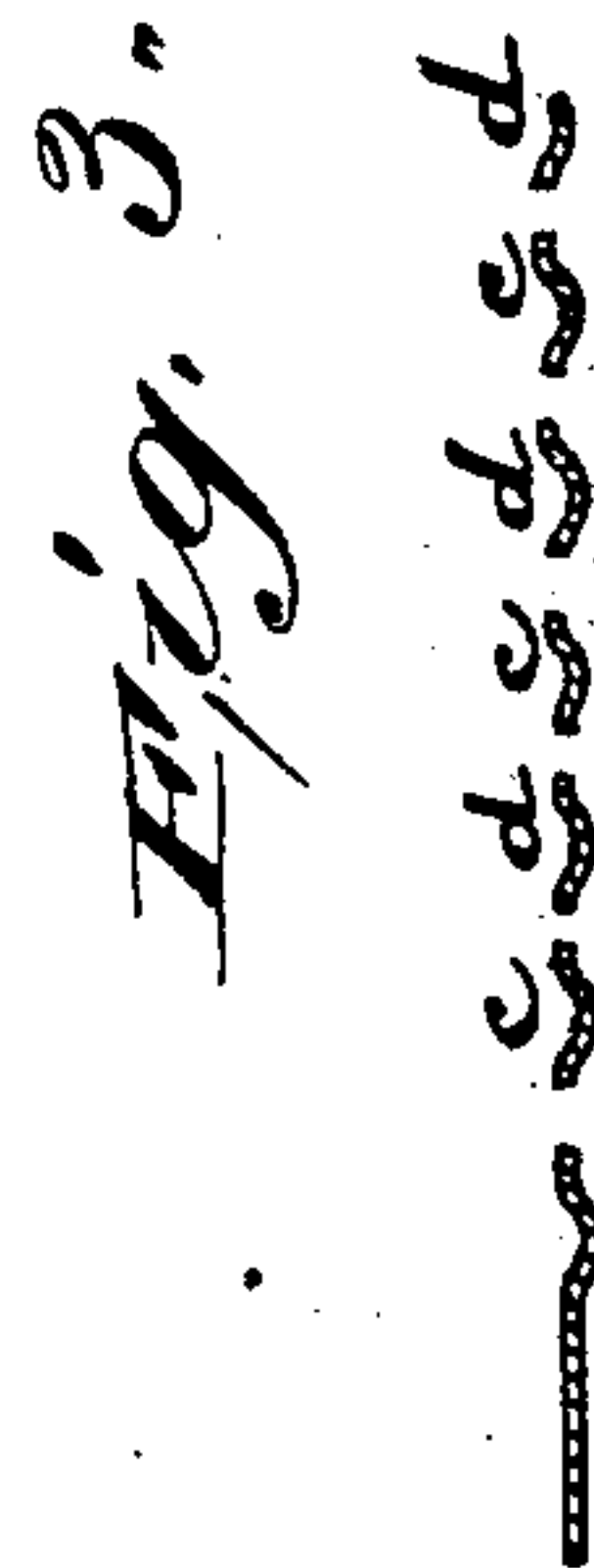
C. B. WHITE.
EXPANDED METAL STRUCTURE.

(Application filed Feb. 7, 1900.)

(No Model.)



Witnesses,
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UNITED STATES PATENT OFFICE.

CLARENCE B. WHITE, OF NEW YORK, N. Y.

EXPANDED-METAL STRUCTURE.

SPECIFICATION forming part of Letters Patent No. 668,668, dated February 26, 1901.

Application filed February 7, 1900. Serial No. 4,354. (No model.)

To all whom it may concern:

Be it known that I, CLARENCE B. WHITE, a citizen of the United States, residing in the city and State of New York, have invented certain new and useful Improvements in Expanded-Metal Structures, of which the following is a description, referring to the accompanying drawings.

This invention is particularly applicable to metal lathing, though its use is by no means so restricted.

For the sake of distinction expanded-metal structures may be divided into two classes—namely, those in which the metal after being slitted is expanded or drawn apart in such a manner as to turn greater or less portions on edge, as in the patent to Golding, No. 320,240, of June 16, 1885, and, secondly, those in which, as in the present invention, the metal after being slitted is not turned in the process of expanding, but still remains flat. A flat sheet expanded in the latter manner is lacking in stiffness; and it is the object of the present invention to produce a desirable form of open-work structure that shall be stiff and at the same time very thin. I accomplish this result by corrugating the metal and by slitting it in a preferably regular pattern parallel with the corrugations.

The invention is of so simple a nature that it will be readily understood from the drawings, which show a preferred embodiment of it.

Figure 1 is a face view of a part of an expanded-metal sheet made in accordance with the present invention. Fig. 2 is an edge view looking from the right of Fig. 1, and Figs. 3 and 4 are cross-sections on the planes 3 3 and 4 4 of Fig. 1.

A considerable variety of patterns is permissible without departing from the principles of the invention. In the form shown in the figure the slits *b* in the first line or row break joints with the slits *b'* of the second row; but the slits *b''* in the third row are directly opposite—that is to say, they do not break joints with the slits *b'*. As a result of this manner of slitting the metal when drawn apart slightly, as shown in the figures, can

only expand by the slight bending and stretching of the diagonal portions *c*. The corrugated portions *d* extend from end to end in straight lines and are unaffected by the expanding or stretching of the sheet. The oblique or diagonal portions *c* join the straight portions *d*, as shown at *e*. Preferably the slits are formed at the successive corrugations instead of having several corrugations between each line of slits. In either event, however, the corrugations add greatly to the stiffness of the structure, and to some extent they facilitate the stretching and expanding.

Having now described my invention in one of its preferred forms, I claim as the characteristic novel features which I desire to secure by Letters Patent the following:

1. As a new article of manufacture, an expanded-metal structure having corrugations and opened slits, the said corrugations being substantially uninterrupted and extending longitudinally, as at *d*, and diagonally, as at *c*.

2. A substantially flat expanded-metal structure having slitted and expanded portions alternating with unexpanded portions, both said portions being continuously corrugated, substantially as set forth.

3. A substantially flat expanded-metal structure having slitted and expanded portions alternating with unexpanded portions, and corrugations extending throughout the expanded and unexpanded portions continuously, substantially as set forth.

4. A substantially flat expanded-metal structure having slitted and expanded portions alternating with unexpanded portions, and having continuous corrugations extending throughout the expanded portions the lines of which corrugations being slightly bent, and diagonal at portions of their length, substantially as set forth.

Signed this 5th day of January, 1900, at New York city, borough of Brooklyn, New York.

CLARENCE B. WHITE.

Witnesses:

D. J. STEWART,
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