Dec. 30, 1924.

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O. B. PULIS ET AL

STEEL ALIGNER

Filed Jan. 28, 1924

Fig. 1.

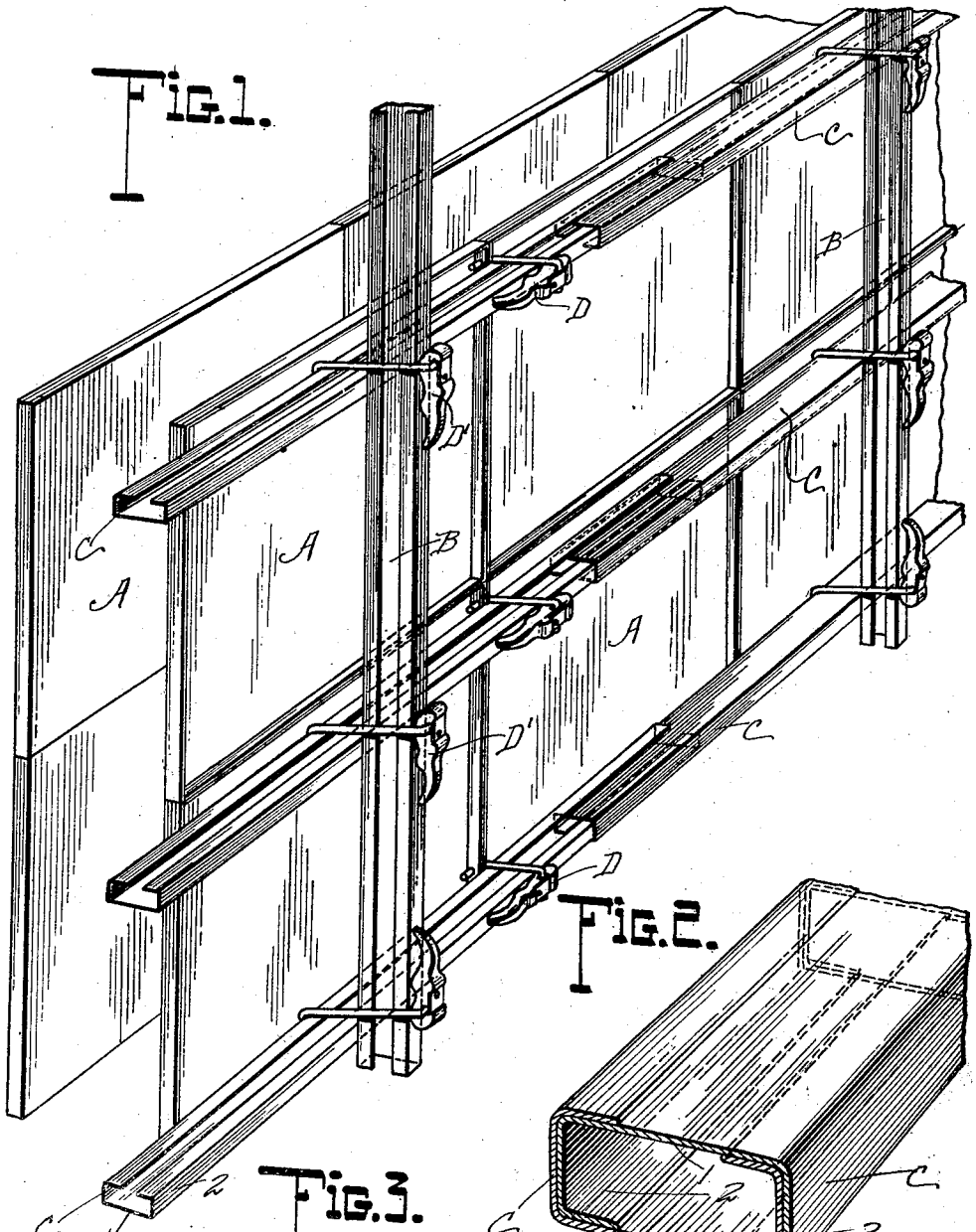
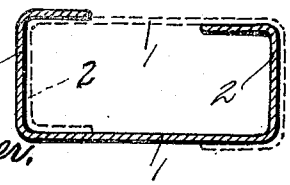


Fig. 2.

Fig. 3.



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UNITED STATES PATENT OFFICE.

OSCAR B. PULIS, OF MILWAUKEE, WISCONSIN, AND MacGREGOR S. ANDERSON, OF BAY SHORE, NEW YORK, ASSIGNORS TO METAL FORMS CORPORATION, OF MILWAUKEE, WISCONSIN, A CORPORATION.

STEEL ALIGNER.

Application filed January 28, 1924. Serial No. 689,127.

To all whom it may concern:

Be it known that we, OSCAR B. PULIS and MacGREGOR S. ANDERSON, citizens of the United States, residing at Milwaukee and Bay Shore, Long Island, in the counties of Milwaukee and Queens and States of Wisconsin and New York, respectively, have invented certain new and useful Improvements in Steel Aligners, of which the following is a specification.

In the erection of concrete buildings and concrete foundations, it is common today to employ building forms comprising units or sections set up one upon another in edge contacting relation. Between two series of such forms the concrete is poured and sets in the well known manner. It is also general practice in the use of such forms to employ what are known as horizontal and vertical aligners. These aligners are to hold the assembled form sections in a certain plane, or in other words, in accurate alignment with one another. Very frequently lumber in the shape of two inch by four inch pieces is employed to provide the aligners aforesaid, or these aligners are made of metal members.

Our invention consists of a new type of aligner for the purpose above described. The aligner is in the form of metal lumber, practically speaking, and its novel feature is a construction in which the aligner members are adapted to telescope one within the other. The telescoping function just referred to is advantageous for two primary reasons. In the first place, the capability of telescoping or sliding the aligner members one within the other admits of ready adjustment of these aligners in proper relation to the form sections simply by relative movement of two or more of the sliding members while engaged with one another. In the second place, our aligner members through their telescopic cooperation may be nested one within the other to facilitate shipment so that they occupy a minimum amount of space when transported.

With the foregoing in view, a full understanding of our invention and the advantages thereof under practical conditions will be had on reference to the following description in conjunction with the accompanying drawings in which,

Figure 1 is a perspective view of a series of forms of a common building form type, set up and held in place by our aligners and co-acting aligner clamps.

Figure 2 is a perspective view of a pair of nested or telescoped aligner members.

Figure 3 is a sectional view of one aligner member and shows a mating member in dotted lines telescoped therewith.

Our invention is very simple as will readily be seen from the drawings in which A denotes each unit of a series of common wall forms of the flanged edge type, B our vertical aligners, and C our horizontal aligners. The wall forms are connected with the aligners in a manner well known to those versed in the art, as by means of horizontal aligner clamps D, and vertical aligner clamps D′.

As shown in Figure 2, our aligner members are of identical form whether horizontally or vertically used. Each aligner member comprises a U-shaped body, one side of which is elongated as shown at 1, and provided with a U-flange 2 of a cross-section of less diameter, so to speak, than the cross-section of the body of the member from which the parts 1 and 2 extend. The elongated arm and the U-flange 2 of one aligner member are, therefore, well adapted to engage in the larger body portion of a second aligner member to afford a nested or telescopic arrangement.

Obviously, the telescoping action of the members may be used in the manner illustrated in Figure 1, when the members are employed in conjunction with wall forms, the said action permitting of an unlimited degree of relative adjustment of the forms and aligner members in an obvious way. Or again, the adaptability of the aligner members to set in and slide in one another permits of so nesting them, as shown in Figure 2, that they may be readily shipped in such relation, thus economizing considerable space.

Having thus described our invention what we claim as new, and desire to secure by Letters Patent of the United States, is:

1. An aligner member comprising a U-shaped body one side of which is elongated and formed with an approximately U-shaped flange of a cross-section of less

diameter than the body, whereby a plurality of such sections may be assembled one within the other.

2. In combination, aligner members and building forms, each member comprising a U-shaped body, one side of which is elongated and formed with a U-flange of a cross-section of a size less than that of the body, whereby two aligner members may be assembled so that the U-flange of one is received in the body of the other and the body of the second member receives the U-flange of the first member, and means connecting the aligners and forms.

3. In combination, aligner members adapted to nest each partially within the other, and each member comprising a curved body one side of which is elongated and formed with a curved flange of a cross-section corresponding to the inside curvature of the body, whereby the curved flange of each aligner member is received in the body of the other aligner member when the two are assembled in nested relation.

In testimony whereof we affix our signatures.

OSCAR B. PULIS.
MacGREGOR S. ANDERSON.