

No. 865,017.

A. H. DANFORTH.
BUILDER'S BRACKET.
APPLICATION FILED MAR. 21, 1906.

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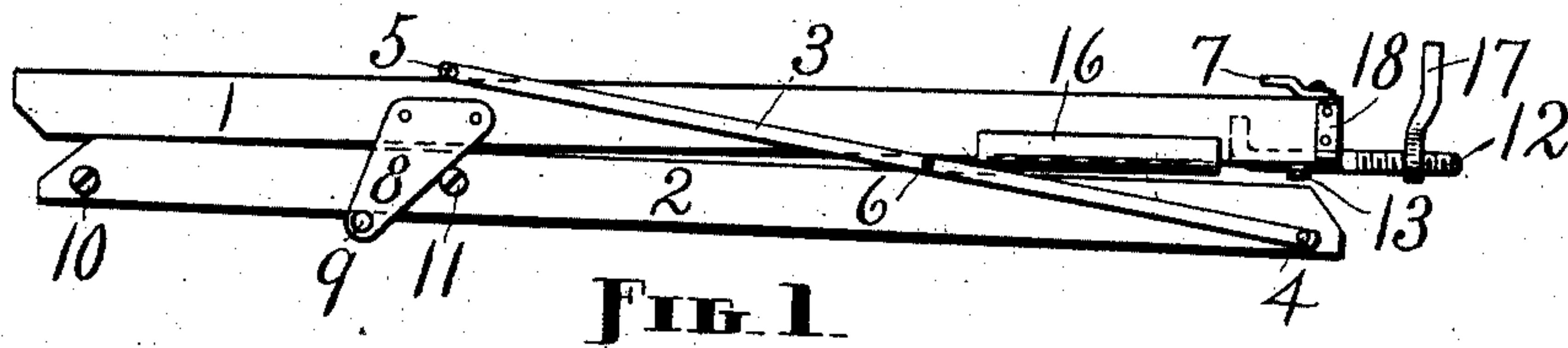


FIG. 1.

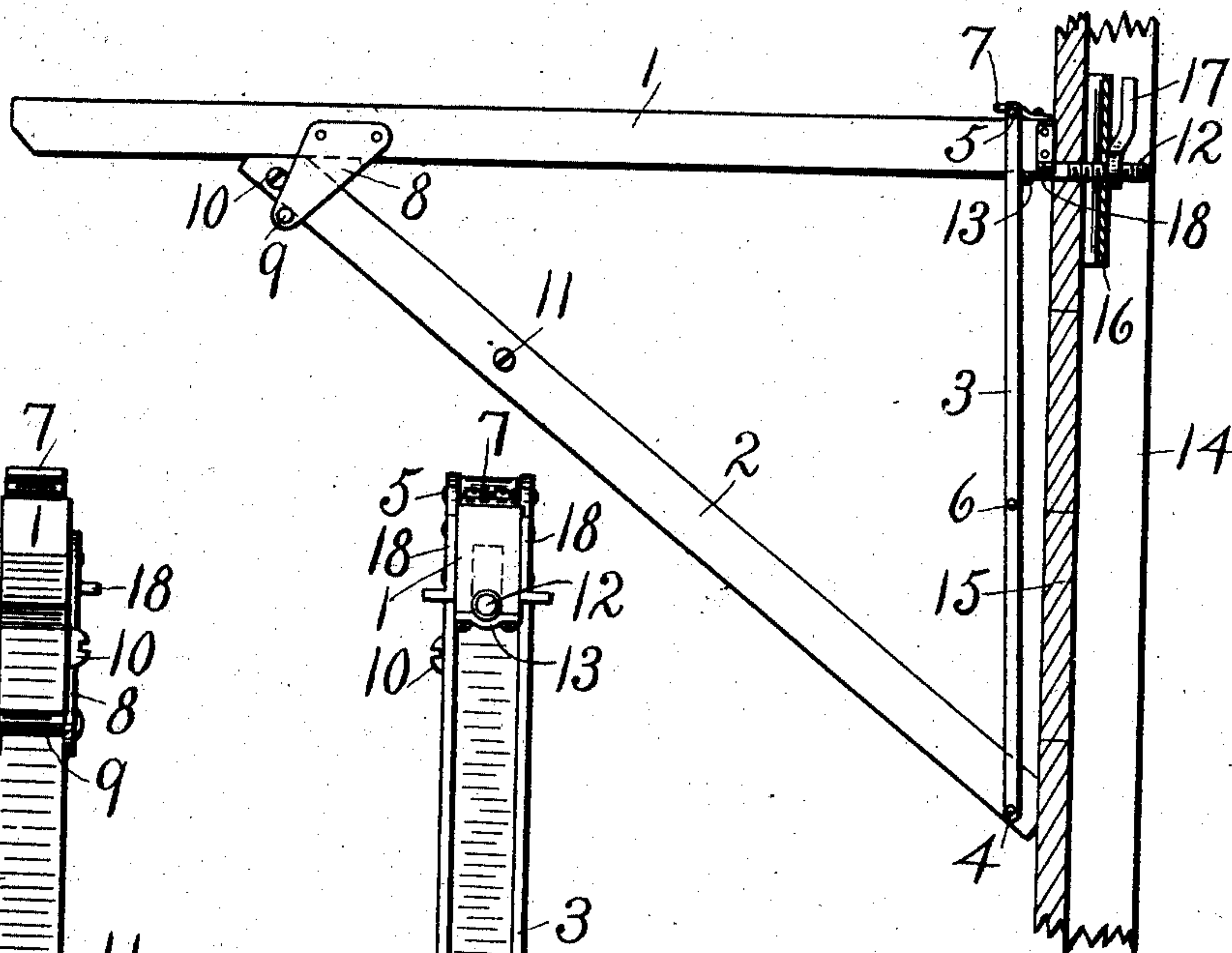


FIG. 2.

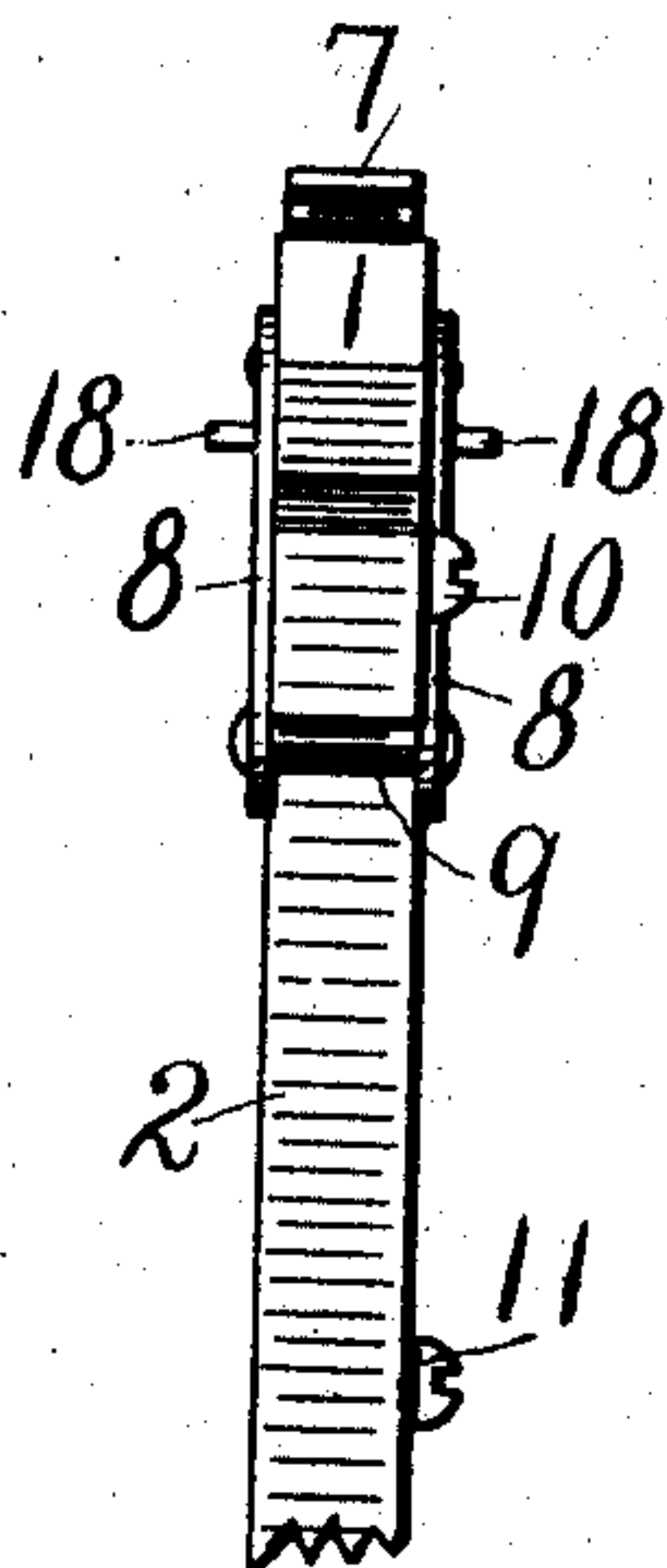


FIG. 3.

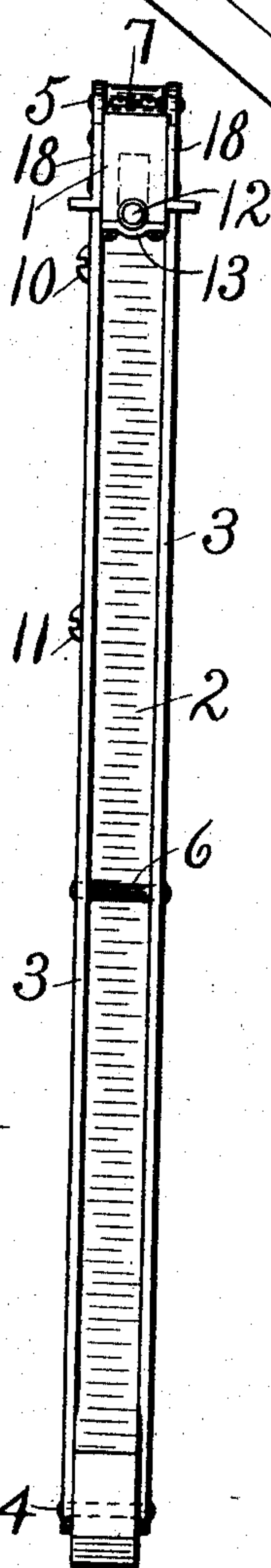


FIG. 4.



FIG. 5.

Witnesses
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BUILDER'S BRACKET.

No. 865,017.

Specification of Letters Patent.

Patented Sept. 3, 1907.

Application filed March 21, 1906. Serial No. 307,205.

To all whom it may concern:

Be it known that I, ALBERT H. DANFORTH, a citizen of the United States of America, residing at Monson, in the county of Hampden and State of Massachusetts, have invented a new and useful Builder's Bracket, of which the following is a specification.

My invention relates to improvements in folding brackets for use on the sides or roofs of buildings to support scaffold boards for the workmen; in which are employed suitable supporting members arranged in sliding relation with each other and links pivotally connected with one of such members and adapted to assist in securing the other member in operative position, together with certain auxiliary parts, all as hereinafter set forth.

The object of my invention is to provide a strong, durable and serviceable, yet light, siding and roofing bracket which can be quickly and easily attached to a building in a strong and secure manner, and which can be readily detached and compactly folded for the purpose of storage or transportation. This bracket is capable of use under a variety of different conditions and is practicable and efficient in its wide range of utility. I attain this object by the means illustrated in the accompanying drawings, in which—

Figure 1 is a side view of my builders' bracket folded; Fig. 2, a side view of such bracket expanded, the same being represented as attached to the boarding of a building ready for use; Fig. 3, an enlarged front end view of the upper portion of said bracket when expanded; Fig. 4, an enlarged rear end view of the expanded bracket, and, Fig. 5, a side view of a retaining rod which may be used with the bracket.

Similar figures refer to similar parts throughout the several views.

My bracket is made up in part of an arm 1, a brace 2 and two links 3, which members are adapted to assume a triangular formation when extended or expanded. The arm 1 is the member which is designed to directly support the scaffold boards. The links 3 are pivoted at one end at 4 to the back end of the brace 2 and have a cross piece or pin 5 connecting them at the other end above the arm 1. The links may be connected at some point between their ends by a cross piece or pin 6 for the purpose of stiffening them. A lug 7 for the pin 5 is fastened on the upper edge of the arm at its rear terminal. The front terminal of the brace, which bears against the under edge of the arm, is connected with said arm through the medium of two ears 8, fastened to and depending from the arm, and a cross piece or pin 9 extending between the bases of said ears. The under edge of the brace bears upon and may slide upon the pin 9; the sliding movement of the brace is, however, limited by means of two stops 10 and 11 on one side of the brace and respectively at the left or above and at

the right or below one of the ears 8. Stops may be provided, of course, on both sides of the brace if desired.

When the bracket is folded into its most compact form, the brace 2 lies nearly parallel with the arm 1 with the stop 11 in contact with the rear edge of the contiguous ear 8, and the links 3 lie with their pin 4 on the top of said arm without projecting to any great extent beyond the latter; now, to open the bracket, draw said brace rearward and downward until the stop 10 encounters the front edge of the aforesaid ear and turn said links upward and backward and force the pin 5 beneath the lug 7 to complete the operation and lock the parts in place. By preference the arrangement of parts should be such that some little strain is produced between the arm and brace connections, when the pin 5 is brought into engagement with the lug, in order to increase the stability of the device. Upon releasing the pin 5 from the lug 7 the bracket can be folded as before.

When expanded the bracket is secured to the building by means of a retaining bolt 12 which is L-shaped and fits into a suitable bore and groove in the bottom of the arm 1, a strap 13 being employed on the under edge of said arm over said bolt to assist in holding the latter in position, if required. In Fig. 2 a stud 14, with boarding 15 thereon, is shown, and my device is held to such boarding, with the rear ends of the arm 1 and brace 2 against the same, by the bolt 12 which passes through said boarding, a supporting piece 16 mounted on said bolt and bearing against the inside face of the boarding, and a clamping nut 17 in threaded engagement with the threaded terminal of the bolt. The supporting piece 16 is preferably channeled so that it can be conveniently stored away with the folded bracket, the method of associating such piece with the bracket when folded being illustrated in Fig. 1.

As a means of preventing in some measure swaying on the part of the bracket when in operative position, laterally-extending projections may be provided on the rear end of the arm 1, such projections in the present case being the short arms of two L-shaped members 18 screwed to the sides of said arm 1 at the back, with their rear edges flush with the rear end of such arm. In practice the horizontal arms or projections from the members 18 bear against the boarding 15 and serve to steady the arm 1 and the whole bracket.

For some purposes, roofing for example, it is desirable to employ either an ordinary coach-screw instead of the bolt and clamping nut, or an uncut rod having a bent portion 19 as shown in Fig. 5. The coach-screw is a bolt like that illustrated in Figs. 1, 2 and 4, except its thread is adapted for wood instead of metal. Upon removing the strap 13 from the bottom of the arm 1 the bolt 12 with the clamping nut 17 is released and can be taken from said arm and laid one side; now dependence

must be placed upon either the coach-screw or the rod just mentioned. When the coach-screw is used it is simply screwed into some timber the necessary distance and then the arm 1 with the rest of the bracket
 5 is hung thereon, but when the rod is used it is first necessary to bore a hole in the timber at the proper angle for the bent portion 19 after which such bent portion is inserted in such hole and the bracket is suspended from said rod as before, the forward terminals
 10 of all of the retaining members being adapted to enter the bore and groove in the bottom of said arm. The particular office of the strap 13 is to prevent the loss of the retaining member when the bracket is not in use, therefore it will be seen that such strap need not necessarily be employed with such member for the purpose
 15 of adding to the security of the bracket when suspended in place, and particularly will said strap seldom if ever be employed with the coach-screw.

The various changes in shape, size, arrangement and
 20 construction of the members which enter into and make up my invention, which fall within the scope of my claims, may be resorted to without departing from the nature of said invention.

What I claim as my invention, and desire to secure
 25 by Letters Patent, is—

1. A builders' bracket comprising two folding members, ears connected at their free ends, rigidly attached to the sides of one of such members, adapted to receive the other member, an outwardly projecting stop on the last mentioned member located forward of one of said ears, and means adapted to lock and release said members when separated at their rear ends.
 30

2. A builders' bracket comprising two folding members.

ears connected at their free ends, rigidly attached to the sides of one of such members, adapted to receive the other sliding member, outwardly projecting stops on the last mentioned member, one of said ears being situated between said stops, and means adapted to lock and release said members when separated at their rear ends. 35

3. The combination, in a builders' bracket, of an arm having a lug mounted thereon at the rear and provided with rigidly attached depending ears connected at the base by a cross piece, such ears being located forward of such lug, a brace having its front terminal introduced between said ears above the cross piece and provided with outwardly projecting stops arranged to limit the sliding movement of the brace relative to said arm and to prevent the brace from being withdrawn from between the ears, and links pivoted at one end to the rear terminal of such brace and having a cross piece at the other terminal adapted to be engaged with and disengaged from said lug. 40 45 50

4. The combination, in a builders' bracket, of an arm having a lug mounted thereon at the rear and provided with rigidly attached depending ears connected at the base by a cross-piece, such ears being located forward of such lug, a brace having its front terminal introduced between said ears above the cross-piece and provided with outwardly projecting stops arranged to limit the sliding movement of the brace relative to said arm and to prevent the brace from being withdrawn from between the ears, links pivoted at one end to the rear terminal of such brace and having a cross-piece at the other terminal adapted to be engaged with and disengaged from said lug, and a retaining member connected with the arm and extending behind the same. 55 60 65

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ALBERT H. DANFORTH.

Witnesses:

HENRY G. ROGERS,
 E. P. DONOVAN.