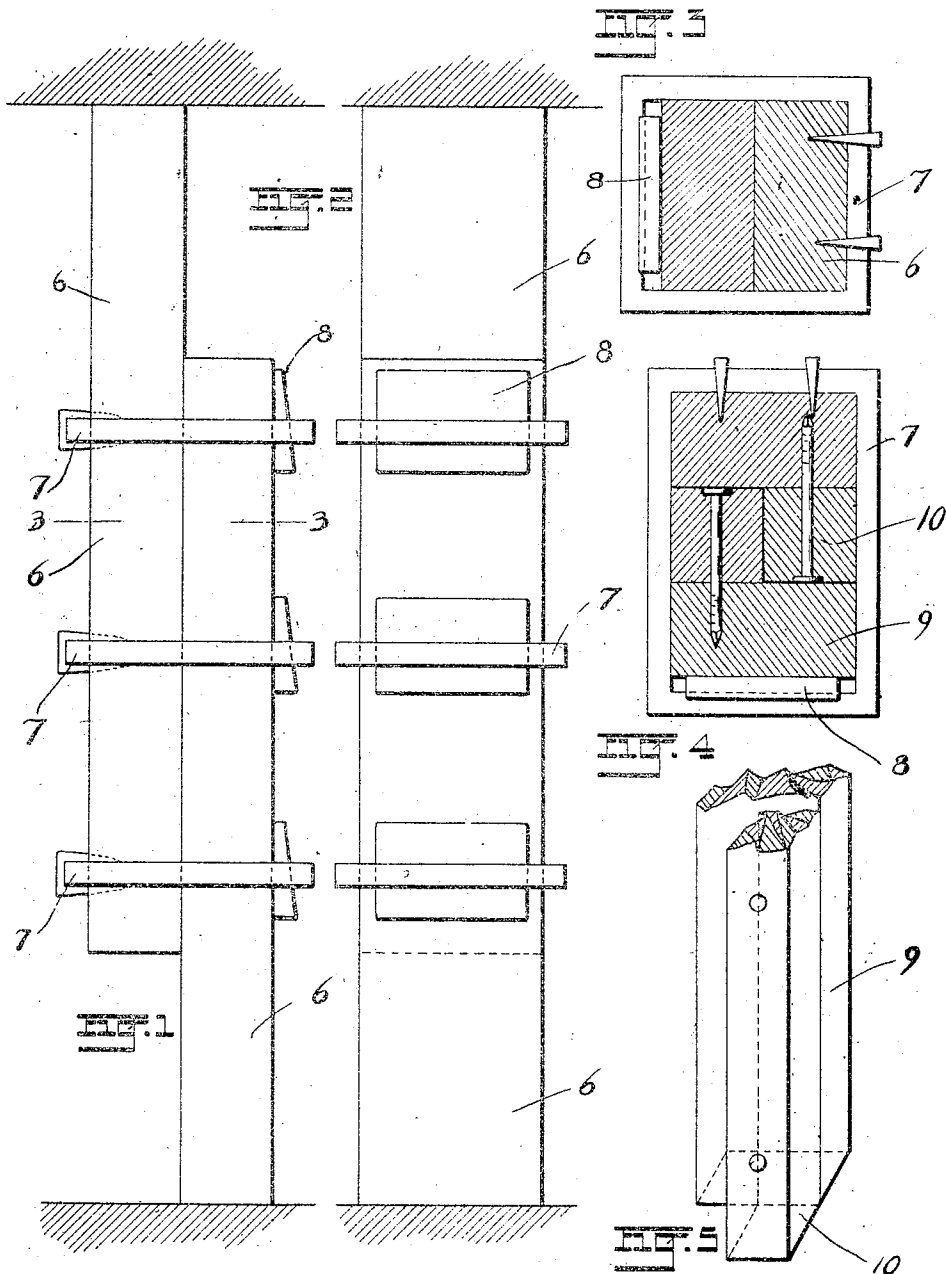


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STRUT.

APPLICATION FILED MAY 4, 1910.

1,043,893.

Patented Nov. 12, 1912.



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BEST AVAILABLE COPY

STRUT.

1,043,893.

Specification of Letters Patent.

Patented Nov. 12, 1913.

Application filed May 3, 1910. Serial No. 559,425.

To all whom it may concern:

Be it known that I, ROBERT ANDERSON, a citizen of the United States of America, and resident of Cincinnati, county of Hamilton, State of Ohio, have invented certain new and useful Improvements in Struts, of which the following is a specification.

An object of this invention is to produce an adjustable strut or shore, which may be varied in length without injuring the material of which the strut or shore is composed.

A further object is to produce a strut or shore, which may be adjusted to various lengths and in which simple means are employed for varying adjustment and for firmly locking the separate portions of the strut or shore in the adjusted positions.

These and other objects I attain by means of the apparatus illustrated in the drawings accompanying this application and forming a part thereof.

In the drawings, Figure 1 is a side elevation of a strut embodying my invention. Fig. 2 is a front view of the strut illustrated in Fig. 1. Fig. 3 is a section along the line 3—3 of Fig. 1. Fig. 4 is a corresponding section of a modified form of strut. Fig. 5 is a fragmental perspective view of a portion of the strut illustrated in section in Fig. 4.

In construction work requiring temporary scaffolding, and especially in concrete work, it is necessary to use the supporting structure, such as, the struts, braces and shores, over and over again, and these struts, etc., must usually be varied in length as the work progresses. Various methods have been employed for varying the length of supporting members, but they are all objectionable, because they require too much time to make a change in length, and more particularly because they injure the strut or shore, and after several changes render it worthless.

The method most universally used is to fasten the overlapping ends of two short struts together by means of wooden cleats, which are secured in place by being nailed to the struts. This method, as well as all the other methods ordinarily used, is not strong or reliable and injures the strut to such a degree, that it can be used only a few times.

The principal object of my invention is to provide means for firmly securing the

separate pieces of the strut together, which will not injure or mar the separate pieces, nor prevent them from being used effectively over and over again.

The strut illustrated as embodying my invention is composed of two pieces 3—6, which are secured together by means of collars 7 and cooperating wedges 8. Each of the pieces 3—6 is shorter than the desired length of the strut or shore and their ends overlap variable amounts, depending upon the length of the strut. Two or more of the collars 7 are located around the overlapping portion of the pieces, and each collar is secured in place by means of one of the wedges 8, which is driven home between the collar and the adjacent face of one of the pieces 3—6. The collars are preferably made of wrought iron or steel, and are of such shape that they fit the overlapping portion or joint between the two pieces 3—6, more or less snugly. Each collar is secured to one of the pieces 3—6 by staples 16.

In adjusting the length of the strut or shore, the separate pieces 3—6, are located so as to give the desired length to the strut or shore, and the wedges 8 are then driven home. This draws the separate pieces firmly together, and the friction between their contacting surfaces is sufficient to support as much weight as the individual pieces are capable of supporting. Moreover, the clamping action of the collars and wedges is increased by loading the strut, since any tendency toward a slipping motion between the separate pieces, will tend to move the collars and thus increase the pressure, and, consequently, the friction between the pieces. In addition to this, the overlapping portion or joint of the strut is located at the point of greatest flexure, and, consequently the strut is stronger than it would be if it were composed of a single piece 6, of the desired length.

In Figs. 4 and 5, I have illustrated details of a strut, which is stronger than the strut illustrated in Figs. 1 to 3, and is better adapted to resist lateral bending in both directions. This strut is composed of two pieces 9, which correspond to the pieces 3—6 of the strut described, and each piece 9 is provided with a longitudinally extending batten 10, which is permanently and rigidly secured on one side of one of the lateral faces. The piece 10 is preferably one-half

the width of the piece 9, and is so located that its lateral face is flush with the lateral face of the piece 9. In assembling the strut, the pieces 9 are caused to overlap, as in the previously described strut, and are so located that the battens 10 are located adjacent to each other in the overlapping portion or joint. Collars 7 are then located along the joint or overlapping portion of the strut, and are secured in place, as has been described, by means of wedges 8. These collars are so constructed that they hold the lateral faces of the battens in contact with each other, as well as forcing one batten in gripping contact with the adjacent piece 9. With this construction the strut is stronger and better enabled to resist lateral bending in both directions. In the first place, each separate piece 9 is strengthened by the batten 10, and the joint is also strengthened, since the battens prevent relative lateral motion between the pieces, and also add to the frictional surface.

This strut, and the one illustrated in Figs. 1 to 3, may be readily taken apart or varied in length, by loosening the wedges 8 and removing or shifting the collars 7. The operations of securing the separate pieces of

the strut together, and also of dismantling the strut, do not injure or in any way detrimentally affect the strut, and it may be used over and over again and be adjusted to various lengths, without in any way injuring it.

What I claim is:—

An adjustable strut, comprising two separate overlapping pieces of equal width, a longitudinally extending batten of half the width of each piece permanently secured along one lateral edge of each piece so as to form, with the piece, an L-shaped member, the battens being of equal thickness, a series of collars encircling the overlapping portions of the pieces, said collars being of such width as to hold the adjacent faces of the battens in engagement with each other, staples for permanently securing the collars in spaced positions on one of said pieces and wedges cooperating with the collars for forcing the over-lapping portions of the pieces into gripping engagement with the adjacent portions of the battens.

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Witnesses:

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