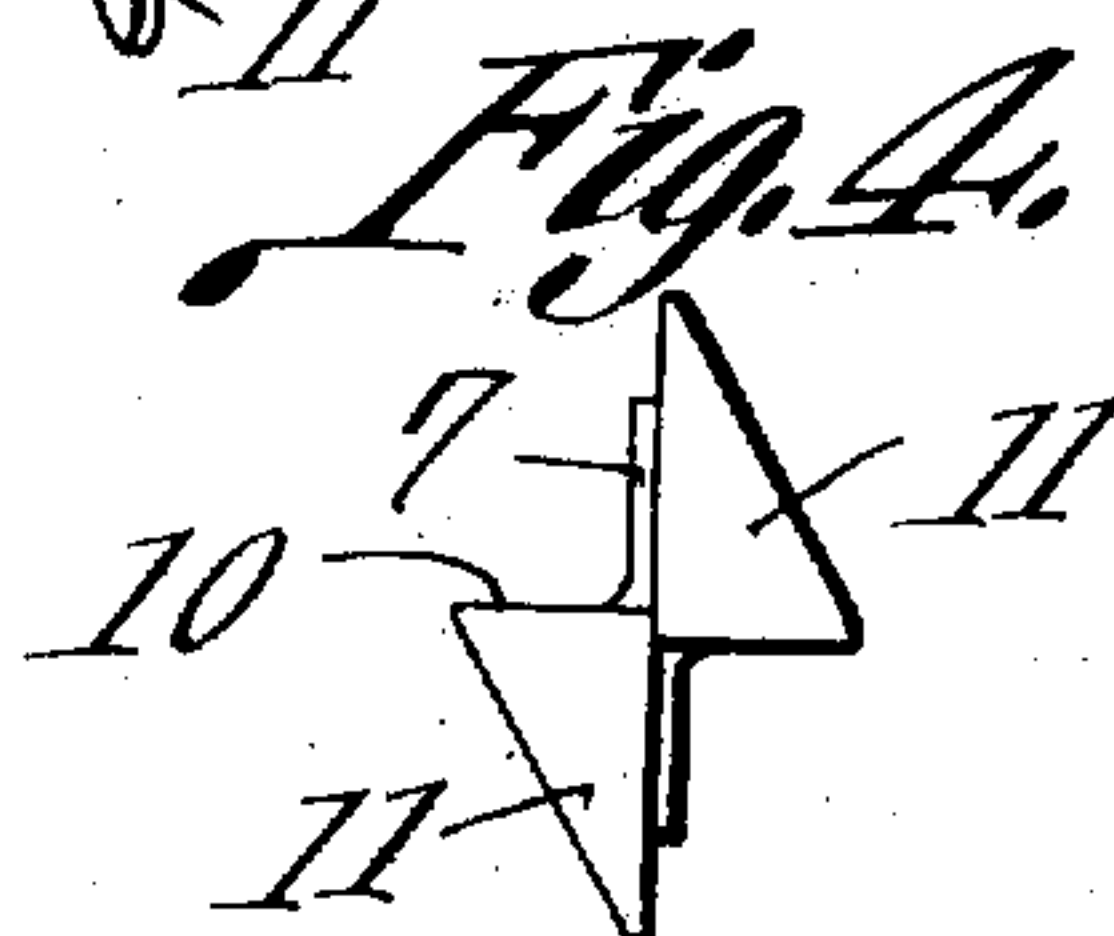
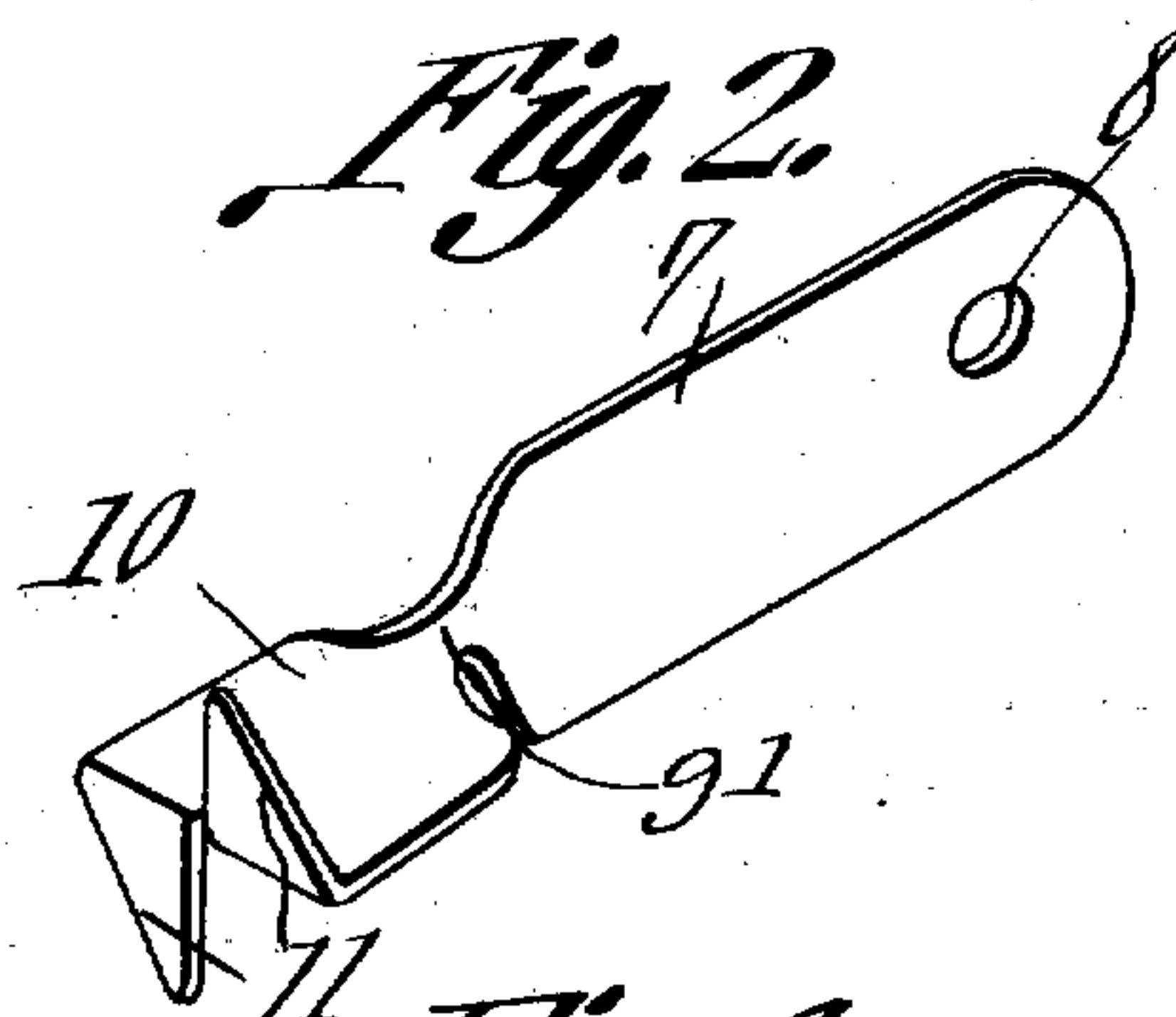
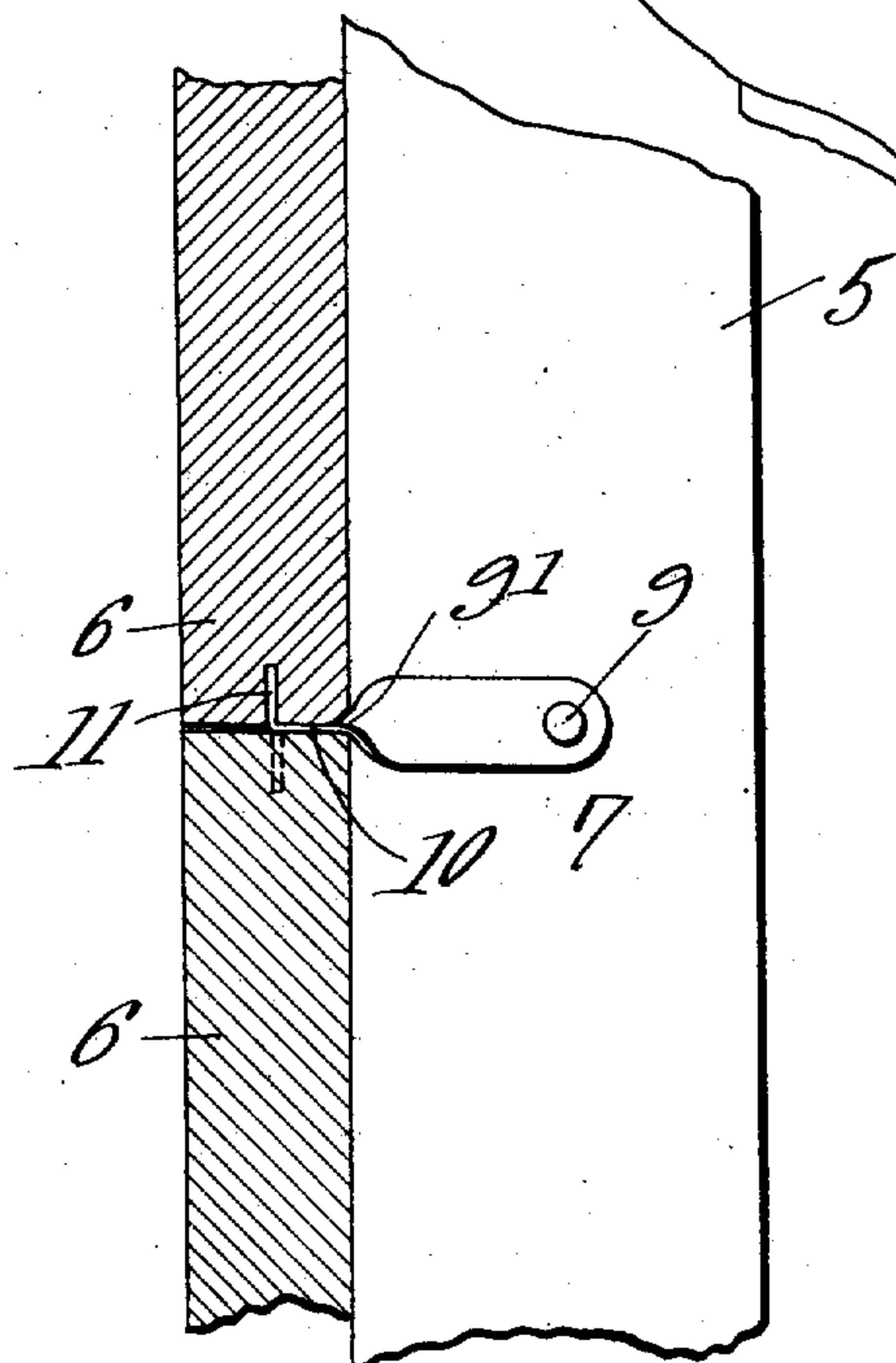
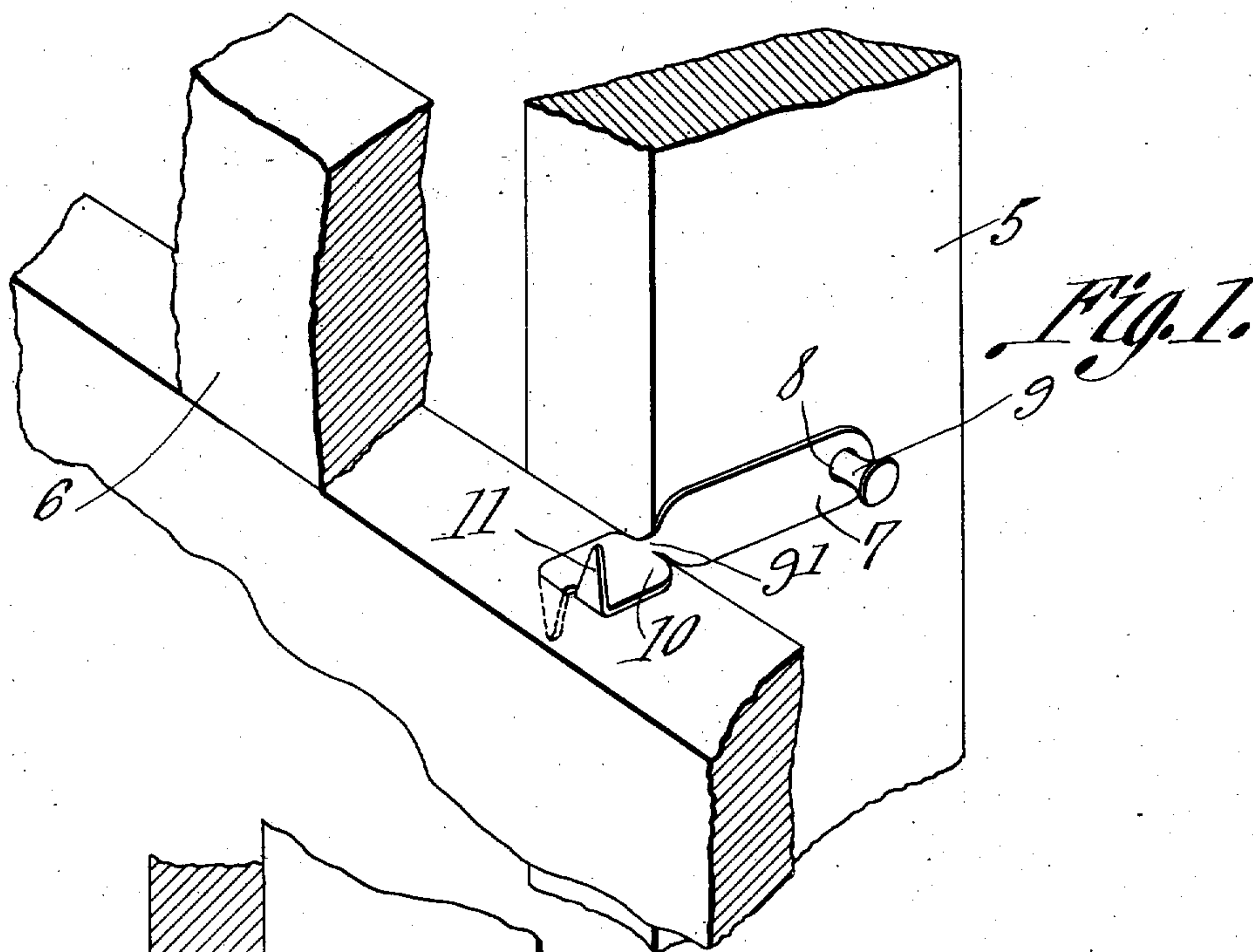


J. W. SLAYTON.
TIE DEVICE FOR WOODEN STRUCTURES.
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Patented Apr. 11, 1911.



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UNITED STATES PATENT OFFICE.

JOHN W. SLAYTON, OF McKEESPORT, PENNSYLVANIA.

TIE DEVICE FOR WOODEN STRUCTURES.

989,198.

Specification of Letters Patent.

Patented Apr. 11, 1911.

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To all whom it may concern:

Be it known that I, JOHN W. SLAYTON, a citizen of the United States, residing at McKeesport, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Tie for Wooden Structures, of which the following is a specification.

In building concrete or other plastic walls, the wooden form or mold for forming the walls is constructed of studding having boards nailed thereto. After the walls have been completed, it is necessary to remove the form and in doing so, the boards are frequently destroyed or so battered as to be unfit for further use.

It is the aim of the present invention, therefore, to provide a tie for securing the boards to the studding in such a manner that the boards may be readily removed from the studding without danger of injury and may consequently be repeatedly used in building a wall form. While it is not broadly new to employ ties for this purpose, nevertheless, such ties as are now employed present several disadvantages. In the first place, they are of such construction that a portion of the wall equal only to the width of a board of the form may be molded at a time. The present invention therefore aims to provide a tie so constructed that the form may be built up to any desired height and the wall then molded therein. A second disadvantage to be found in ties such as occasionally employed at the present time, is that they are presented to the material being molded and consequently the face of a wall constructed in a form embodying these ties will have numerous holes or indentations in its face which renders it unsightly and makes it necessary that the entire wall be gone over and these indentations filled in.

In the accompanying drawings Figure 1 is a perspective view, partly in section, illustrating the application of the invention to the elements of a form for molding a concrete wall. Fig. 2 is a vertical transverse sectional view taken in a plane directly beside one piece of studding of the form. Fig. 3 is a detailed perspective view of the tie removed from the studding and board. Fig. 4 is a front end view of the tie embodying the present invention.

In the drawings, a piece of studding constituting one element of the form in connection with which the tie embodying the

present invention is used, is indicated by the numeral 5 and two of the boards to be secured in place thereby are indicated by the numeral 6. As heretofore stated, it is at present customary, in practically every instance, to nail the boards 6 to the studding 5 but, also as heretofore stated, the present invention contemplates the provision of a tie for holding the boards to the studding.

The tie mentioned above and embodying the present invention is illustrated in the several figures of the drawings as embodying an attaching shank 7 formed near one end with an opening 8 for the passage of a nail 9 for securing it in place upon the studding 5. Near its other end, the shank 7, which by the way is preferably flat, it being formed from stout sheet metal, is twisted as at 9' to provide a portion 10 lying in a plane transverse to the plane of the main portion of the shank. The portion 10 is of considerably less length than the main portion of the shank. Further, the portion 10 is split to form pointed substantially triangular tongues 11 one of which is bent up and the other bent down, as clearly illustrated in Fig. 3 of the drawings.

In using the device embodying the present invention, a nail 9 is driven through the opening 8 and into the studding 5 until its head assumes a position near the shank. This leaves the nail in such position that it may be readily withdrawn from the studding and further allows for slight pivotal movement of the shank, the function for which will presently be explained. A blow is then struck upon the portion 10 of the shank at the base of the downwardly presented tongue 11 thereby driving this tongue into the top edge of the lower one of the two boards 6 illustrated in Figs. 1 and 2 of the drawings. The upper one of these two boards is then disposed against the studding and is lowered until its lower edge comes against the pointed end of the upturned one of the tongues 11. The top edge of the board is then given a tap with a hammer which will serve to force the board down upon the tongue causing the tongue to enter the lower edge of the board. The lower and upper boards will then be firmly held at their upper and lower edges respectively, against the studding 5. At this point it will be readily understood that owing to the fact that the shank of the tie may have pivotal movement, upon the attaching nail

9, it is not absolutely necessary to exercise care in locating the point at which the nail is to be driven into the studding for, should the nail be driven into the studding at a point above that illustrated in Fig. 1 of the drawing, the shank could then incline downwardly toward its tongue carrying end and it would still perform its proper function; or, the point at which the nail is driven into the studding may be located below that illustrated in Fig. 1 of the drawing. The inclination of the shank at the point mentioned above or below the horizontal plane of the meeting edges of the board, does not affect the proper engagement of the portion 10 and the tongues 11 carried thereby, between the said edges of the board for the simple reason that the shank, being weakened at its twisted portion 9', to a slight degree, may bend at this point, and furthermore the tongues 11, in entering the edges of the board will bend to conform to the grain of the wood.

It will be readily understood that a form constructed of studding and boards held together in assembled relation by the ties embodying the present invention, may be readily taken down after a wall has been molded therein and without battering the boards or studding and rendering them unfit for further use.

By referring to Fig. 4 of the drawing it will be observed that the adjacent edges of the tongues 11 are in substantially the same vertical plane, this being the plane of the main portion of the attaching shank of the tie. The pointed ends of the tongues are formed by cutting the other side edges of the tongues at an angle. Thus, it will be understood that in forming the two tongues it is only necessary to make one split or cut in the portion 10 and then bend the tongues up and down respectively.

What is claimed is:

A device of the class described comprising a flat attaching shank formed at one end with an opening for the passage of a securing element, the shank near its other end being twisted to provide a portion lying in a plane transverse to the plane of the shank, and pointed tongues formed at the last mentioned end of the shank and having their ends presented in opposite directions, the tongues lying in a plane at right angles to the plane of either portion of the shank.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

JOHN W. SLAYTON.

Witnesses:

JOHN McDERMOTT,

JAMES G. GREGGERSON.