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CARPENTER'S ALIGNING TOOL

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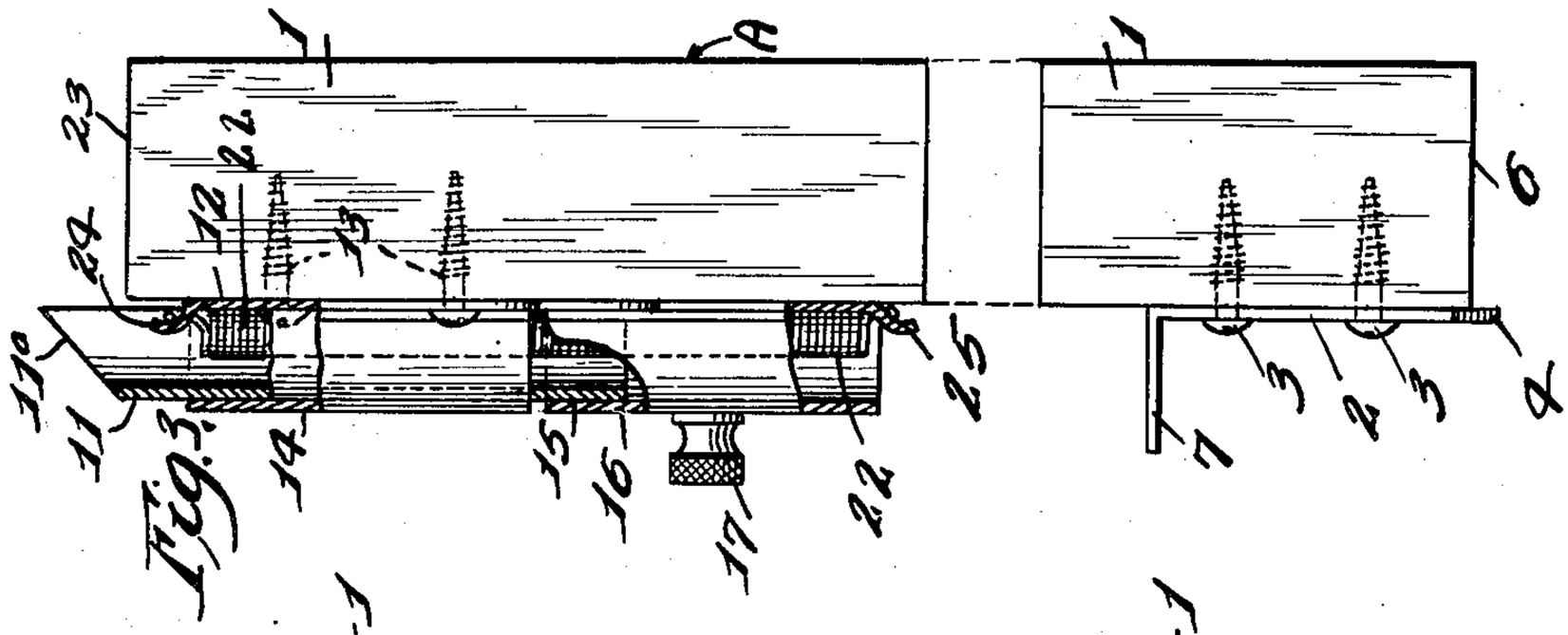

Fig. 3.

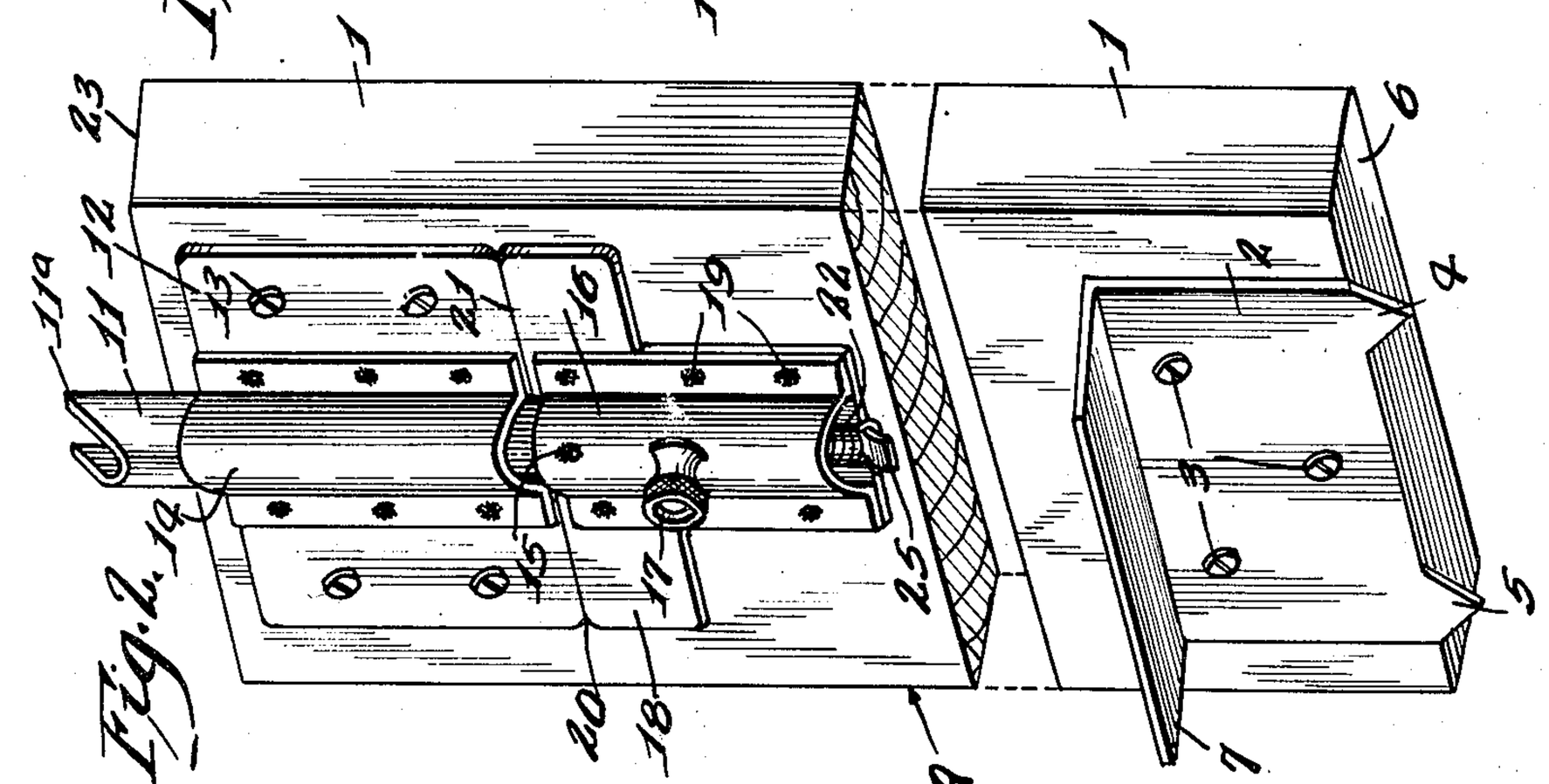

Fig. 2.

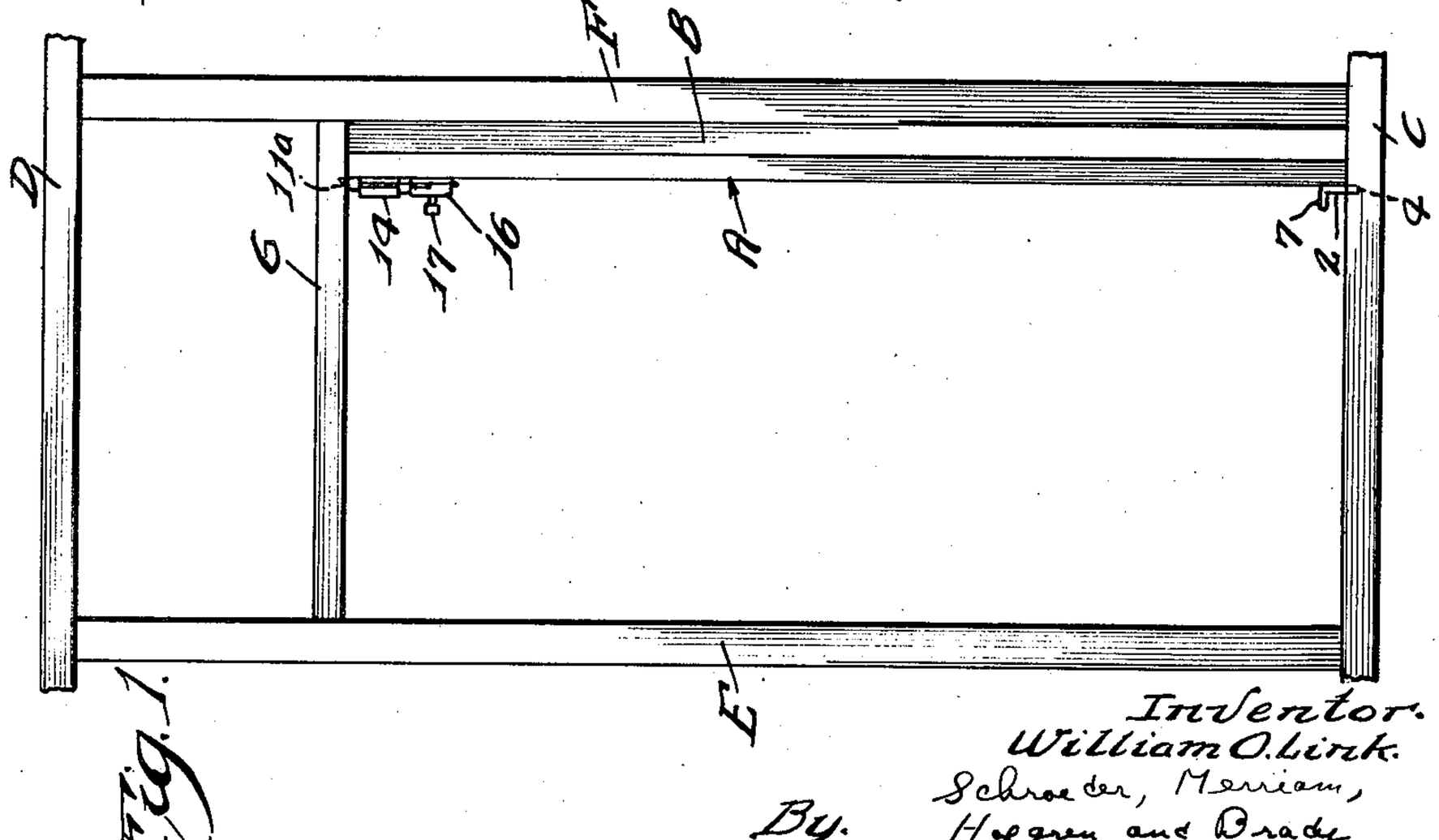

Fig. 1.

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CARPENTER'S ALIGNING TOOL

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3 Claims. (Cl. 144—288)

This invention relates to a carpenter's aligning tool for use in temporarily holding a structural member in a stationary position.

The object of this invention is to provide a new and improved carpenter's aligning tool.

Another object of the invention is to provide an aligning tool for use in temporarily supporting a structural member against a surface and thus enable an artisan to have both hands free for other operations on the structural member.

Another object of the invention is to provide an aligning tool constructed for use between spaced parallel members and which has extending outwardly from one end thereof, prongs for insertion in one of said parallel members and a retractable plunger extending outwardly from the other end thereof for insertion in the other of said spaced parallel members.

Other and further objects of the invention will be readily apparent from the following description and drawings in which:

Fig. 1 is a side elevation of the aligning tool showing the use thereof with a door jamb;

Fig. 2 is a perspective view of the aligning tool with the central portion thereof cut away; and

Fig. 3 is a side elevation of the aligning tool with the central portion and parts at one end thereof cut away.

While this invention is susceptible of embodiment in many different forms, there is shown in the drawings and will herein be described in detail, a preferred embodiment with the understanding that the present disclosure is to be considered as an exemplification of the principles of the invention and is not intended to limit the invention to the embodiment illustrated. The scope of the invention will be pointed out in the appended claims.

An aligning tool A embodying my invention is shown in Fig. 1 in use with a construction member B. The aligning tool of this invention may be used whenever it is necessary to provide temporary support for a construction member while this member is being secured to other parts of the construction. As shown in Fig. 1, a sill C and a runner D between which are extended a pair of vertical studs or supports E and F constitute a roughed-in wall construction. A head jamb G extends laterally between the studs E and F. The head jamb G and the sill C both of which may be of wood construction, constitute spaced parallel members defining a doorway between which the construction members B, in this instance side jambs, are to be secured. In securing the generally rectangular side jamb B to the stud F it is extremely helpful to have a tool which will securely hold the jamb B flush with the stud F and enable the carpenter to have his hands free for securing of the jamb B to the sill C and head jamb G.

This aligning tool is shown in more detail in Figs. 2 and 3 and comprises a generally rectangular bar **1**, which may be of wood and which is of a length slightly less than the distance between the sill C and head jamb

G and of a width to securely hold the jamb B against the stud F. An L-shaped metal plate **2** is mounted at one end of the bar by suitable means, such as screws **3** and has two generally triangular shaped thin sharply pointed prongs **4** and **5** which extend outwardly beyond the base **6** of the bar. These prongs are constructed for easy insertion within the sill C and for securely holding the bar engaged with said sill. To facilitate insertion of the prongs **4** and **5** in the sill C, the plate **2** is provided with a flange **7** which extends normal to the bar and which provides a means by which the foot may be utilized to press the prongs **4** and **5** into the sill.

At the other end of the bar **1**, a metal plunger having a generally U-shaped portion **11** is mounted for sliding movement between a withdrawn position and a position wherein the sharply pointed end **11***a* of the plunger extends outwardly beyond the end **23** of the bar **1**. A mounting plate **12** which may be secured to the bar **1** by a plurality of screws **13** slidably supports the plunger **11**. This plate **12** has a guide channel **14** which is generally U-shaped in cross section and in which the U-shaped portion **11** of the plunger is received. Secured to the portion **11** of the plunger, by means such as a weld **15**, is a generally U-shaped extension **16** forming a base of the plunger and which mounts a knob **17** to facilitate manual retraction of the plunger. A T-shaped flat member **18** is secured to the extension **16** of the plunger by suitable means such as welding as indicated at **19**. An edge **20** of this plate constitutes a stop which engages an edge **21** of the mounting plate **12** to limit outward movement of the plunger. Extending between the plate **12** and the T-shaped member **18** is a tension spring **22** which urges the plunger outwardly away from the upper end **23** of the bar **1**. This spring may be secured to the plate **12** and member **18**, respectively, by means of bent tabs **24** and **25** on these parts.

It will be apparent that this aligning tool may be used to secure a construction member, such as jamb B, against a vertical support, such as stud F, and thus permit a carpenter to proceed with securing of the member between spaced parallel members, such as the sill C and head jamb G.

In using this tool, it will first be placed in position adjacent the jamb B and the metal prongs **4** and **5** driven into the wooden sill C. This may be readily accomplished by placing the foot on the flange **7** and pressing downwardly. To secure the upper end of the tool the plunger is retracted against the action of the tension spring **22** to a position wherein the pointed end **11***a* lies within the area of the bar **1** and the pointed end **11***a* of the metal plunger is then driven into the head jamb G by the force of the spring upon release thereof. If this force is not sufficient, then the plunger may be driven into the head jamb with some suitable means such as a hammer.

I claim:

1. A carpenter's aligning tool for maintaining a side jamb securely against an adjacent stud and between spaced parallel sill and head jambs of wood construction, comprising an elongated generally rectangular bar adapted to be placed against said side jamb, said bar having a length slightly less than the distance between said sill and head jamb, a pair of thin fixed substantially triangular sharply pointed metal prongs mounted at one end of said bar and extending outwardly beyond the end of said bar for insertion in said wooden sill, a flange projecting laterally from said bar and adjacent said prongs for facilitating manual insertion of said prongs, a metal plunger mounted at the other end of said bar and having a sharply pointed end normally extending outwardly beyond said bar for insertion in said head jamb, means secured to said bar for slideably mounting said plunger,

and a tensioned spring connected between said plunger and said mounting means for urging said plunger into its normal position, said plunger having a path of movement sufficient to enable retraction thereof to a position wherein said pointed end lies within the area of the bar, said retraction causing increased tensioning of the spring whereby, upon release of the plunger, the sharply pointed end thereof will be driven into said head jamb.

2. An aligning tool for maintaining an elongated construction member securely against an adjacent support and between spaced parallel members, comprising an elongated bar adapted to be placed against said elongated construction member, a pair of fixed sharply pointed substantially triangular prongs mounted at one end of said bar and extending outwardly beyond the end of said bar for insertion in one of said spaced parallel members, means for facilitating manual insertion of said prongs, a plunger mounted at the other end of said bar and having a sharply pointed end normally extending outwardly beyond said bar for insertion in the other of said spaced parallel members, tensioned spring means for outwardly urging said sharply pointed end of the plunger into its normal position, said plunger having a path of movement sufficient to enable retraction of the sharply pointed end to a position within the area of the bar thereby causing increased tensioning of the spring so that, upon release of the sharply pointed plunger, the pointed end thereof will be driven into said other spaced parallel member.

3. A carpenter's aligning tool for maintaining a side jamb securely against an adjacent stud and between spaced parallel sill and head jambs of wood construction, comprising an elongated generally rectangular wooden bar adapted to have a side thereof placed against said side jamb, said bar having a length slightly less than the difference between said sill and head jambs, a metal plate removably mounted at one end of said bar and on a side opposite to the jamb engaging side having a portion

turned to form a flange normal to the length of the bar, the bottom portion of said plate terminating in a pair of substantially triangular thin sharply pointed metal prongs extending outwardly from the end of the bar in a plane substantially parallel to the length of the bar for forced insertion in said sill when manual downward force is applied to the flange of said plate, a second metal plate removably mounted at the other end of said bar on the same side of said bar as said first plate, and having a tubular guide channel extending parallel to the length of said bar, a metal plunger positioned in said tubular guide channel and having a sharply pointed end normally extending beyond the end of said bar and positioned for operation in a direction opposite to that of said pair of prongs, a tensioned spring connected between said second metal plate and said plunger to urge the sharply pointed end of said plunger into said normal position, said plunger being manually retractable within said tubular member against the force of the spring so that the sharply pointed end may be positioned below the top of said bar to enable positioning of the bar adjacent the head jamb and upon release of the plunger be driven beyond the top of the bar and into said head jamb by the spring, and a stop member secured to the plunger and engageable with said second metal plate for limiting the outward movement of the plunger.

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