

No. 892,333.

PATENTED JUNE 30, 1908.

C. J. TRAUB.
JOINT FASTENER.

APPLICATION FILED JUNE 8, 1907.

2 SHEETS—SHEET 1.

Fig. 1.

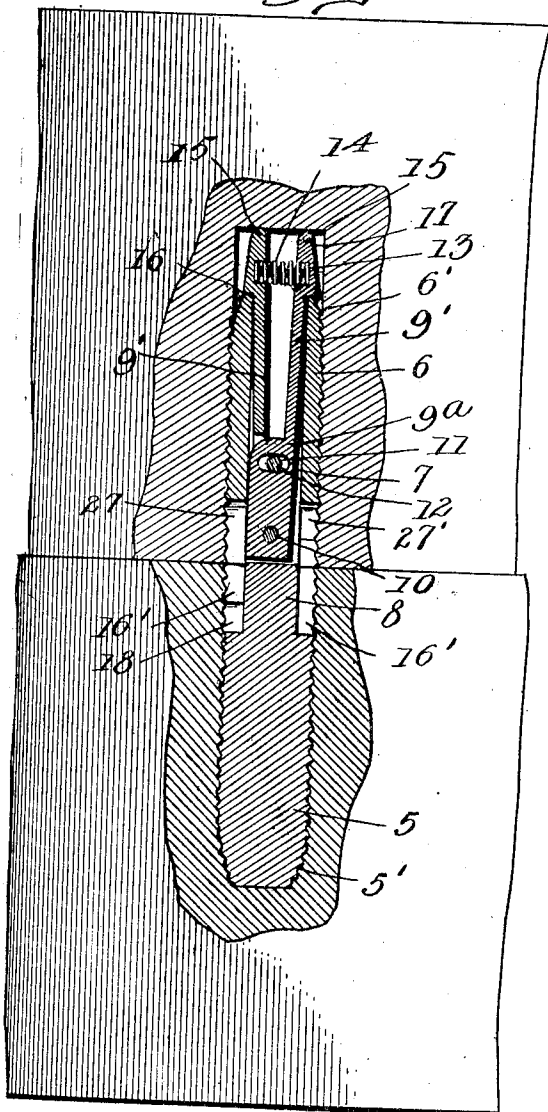
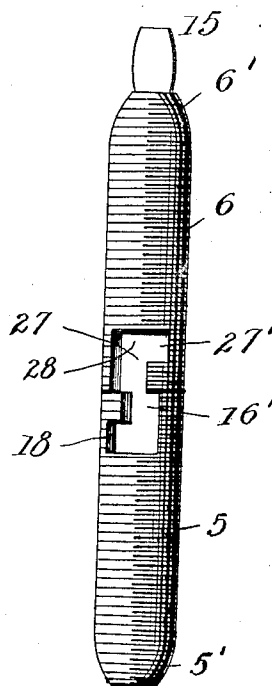


Fig. 2.



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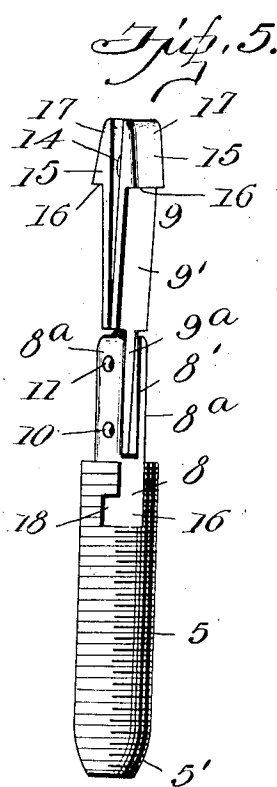
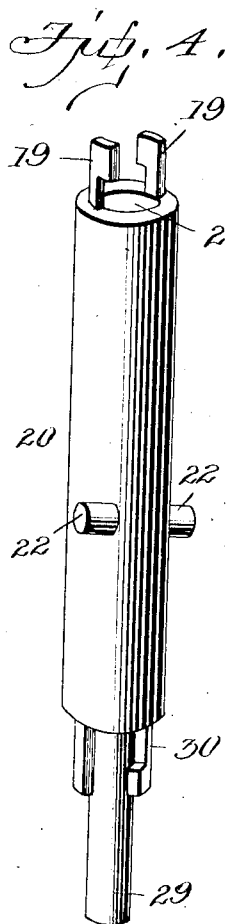
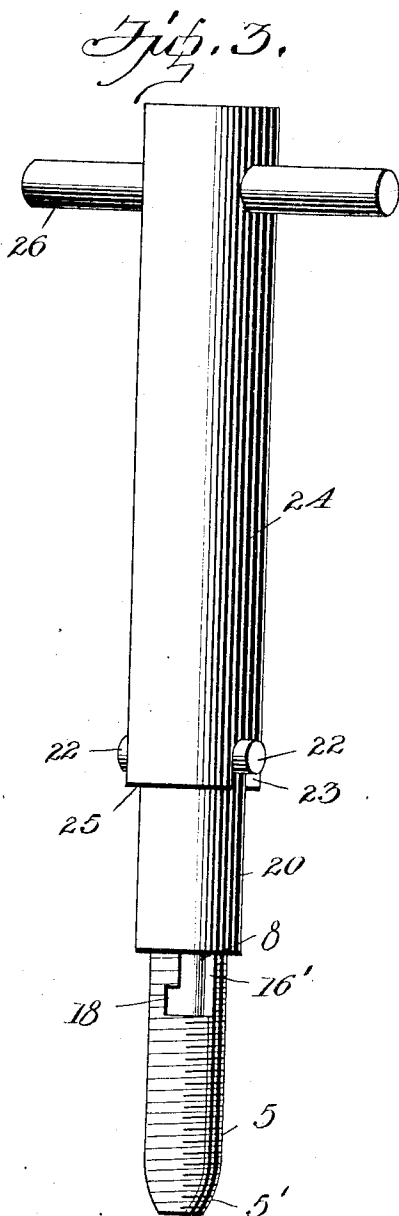
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UNITED STATES PATENT OFFICE.

CHARLES J. TRAUB, OF CINCINNATI, OHIO.

JOINT-FASTENER.

No. 892,333.

Specification of Letters Patent.

Patented June 30, 1908.

Application filed June 8, 1907. Serial No. 377,991.

To all whom it may concern:

Be it known that I, CHARLES J. TRAUB, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented a certain new and useful Improvement in Joint-Fasteners, of which the following is a specification.

This invention relates to fasteners, and more particularly to fasteners for the joints of furniture etc., in which it is desired that the fastenings be invisible, and has for its object to provide a fastener of this kind which will be simple and cheap, which may be easily placed in position, and which, when so placed, will be entirely invisible.

Other objects and advantages will be apparent from the following description and it will be understood that changes in the specific structure shown and described may be made within the scope of the claims without departing from the spirit of the invention.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a sectional view through the present fastener, in position to fasten two pieces of wood together; Fig. 2 is an elevational view of the fastener, showing the correlation of the two members; Fig. 3 is an elevational view showing the inserting member and key in use in connection with one of the threaded members; Fig. 4 is a perspective view of the inserting member; Fig. 5 is an elevational view of the threaded member which carries the locking jaws.

Referring now to the drawings, the present invention comprises two exteriorly threaded cylindrical members 5 and 6, the member 6 having a longitudinal passage 7 formed therethrough, as shown. The two members are gradually reduced at their outer end portions, as shown at 5' and 6' respectively, and at its inner end, the member 5 carries a cylindrical stem 8, which projects therefrom and which is bifurcated as shown at 8'.

A pair of jaw members 9 are provided, each consisting of an outer flat portion 9' and an inner flat portion 9^a, the portions of each jaw member extending at right angles to each other. The two jaw members are disposed with their outer portions 9' in approximately parallel relation, and with their inner portions 9^a overlapped and engaged in the bifurcation 8' of the stem 8. The bifurcation of this stem results in spaced

fingers 8^a, as shown, between which the portions 9^a of the jaw members lie, and a pivot pin 10 is engaged transversely through these fingers and the portions 9^a of the jaw members, adjacent to the inner ends thereof. A transverse pin 11 is engaged in the fingers 8^a adjacent to their outer ends and is received in registering openings 12 formed in the portions 9^a of the jaw members adjacent to the outer ends thereof. The openings 12 are slightly elongated transversely of the portions 9^a so that the jaw members have slight pivotal movement toward and away from each other upon the pin 10.

Sockets 13 are formed in the inner faces of the jaw members adjacent to their free extremities, and receive a helical spring 14, which thus holds the jaw members with their outer ends yieldably in spaced relation. Jaws 15 are carried by the outer end portions of the jaw members, and extend outwardly in opposite directions. These jaws have straight faces 16 at their inner ends and forwardly convergent faces 17, as shown.

Formed in the surface of the member 5 at diametrically opposite points, there are a pair of longitudinally extending recesses 16' which open through the inner end of the member. These recesses have oppositely extending lateral extensions 18 at their distal ends from the inner end of the member, as shown. These recesses with their extensions, are designed to receive correspondingly formed fingers 19 carried by what may be termed an inserting member 20, these fingers being located at one end of the inserting member and projecting longitudinally therefrom at opposite sides of a central longitudinally extending recess 21 arranged to receive the jaw members 9 and the stem 8, in order that the fingers 19 may be engaged in the recesses 16'.

The inserting member 20 is cylindrical in form, and has lateral projections 22 at opposite points between its ends, for engagement in notches 23 formed in a key 24. This key consists of a hollow cylindrical member open at one end as shown at 25, and it is at this open end that the notches 23 are formed. Adjacent to the opposite end of the member, a transverse rod 26 is engaged therethrough, by which the key may be turned. As will be understood, the cylindrical member is arranged to receive the portion of the inserting member 20 at either side of the projections 22, therewithin.

The member 6 has a longitudinal passage 7 formed therethrough, as previously stated, and at its inner end this member 6 is bifurcated to form spaced portions 27, each of which is provided with a lateral projection 27' at its outer end. These projections 27' are located at opposite sides of the portions 27 so that spaces are formed which are in effect angular recesses 28 similar in shape to the recesses 16' of the member 5.

The inserting member 20 carries a centrally located outwardly projecting stem 29 at its opposite end from the fingers 19, and at the base of this stem 29, there are formed laterally projecting angular enlargements 30 of a size and form to engage in the spaces 28. The arrangement is such that the stem 29 may be engaged in the passage 7 with the enlargements 30 between the edges of the portions 27, when rotation of the inserting member will carry the member 6 therewith, as will be readily understood.

The inserting member 20 is of somewhat greater diameter than the members 5 and 6, for a purpose which will be later described.

As will be seen from the drawings, the passage 7 is primarily designed to receive the jaw members 9 and the stem 8 therewithin, and the arrangement is such that when the two members 5 and 6 are in mutual engagement at their inner ends, the jaws 15 lie outwardly of the member 6 and with their faces 16 against the outer ends of this member, to hold the two members against separation.

In use, when it is desired to join two pieces of wood, the surfaces to be fastened together, are bored into to form recesses disposed to be brought into registration. The inserting member is then engaged with the member 5 and the latter is screwed into one of the recesses until the end of the inserting member engages the surface of the wood surrounding

the recess. The inserting member is then disengaged from the member 5 and engaged with the member 6, the latter being screwed into the other recess. The jaw members are then inserted in the passage 7 of the member 6 and the two pieces of wood brought together, when the jaws 15 will lock the members 5 and 6 against separation, as described above.

What is claimed is:

1. A joint fastening means comprising differently formed locking members threaded for engagement in material to be joined, one of said members being hollow, fingers carried by the other of said members and arranged for insertion through the hollow member, and a pair of jaw members pivoted between the fingers and arranged for engagement with the hollow member.

2. A joint fastener comprising two exteriorly threaded members, a stem carried by one of said members and bifurcated to form spaced fingers, a pair of jaw members pivoted between the fingers, means for limiting the outward movement of the jaw members, a spring arranged to hold the jaw members yieldably against inward movement, and jaws carried by the outer ends of said jaw members, the other of said threaded members being hollow for the reception of the jaw members and the bifurcated stem, said jaw members being arranged to lie with their jaws against the outer end of the hollow member when the inner ends of the two first named members are in mutual engagement.

In testimony whereof I affix my signature, in presence of two witnesses.

CHARLES J. TRAUB.

Witnesses:

EDWARD TRAUB,
JOHN TRAUB, Sen.