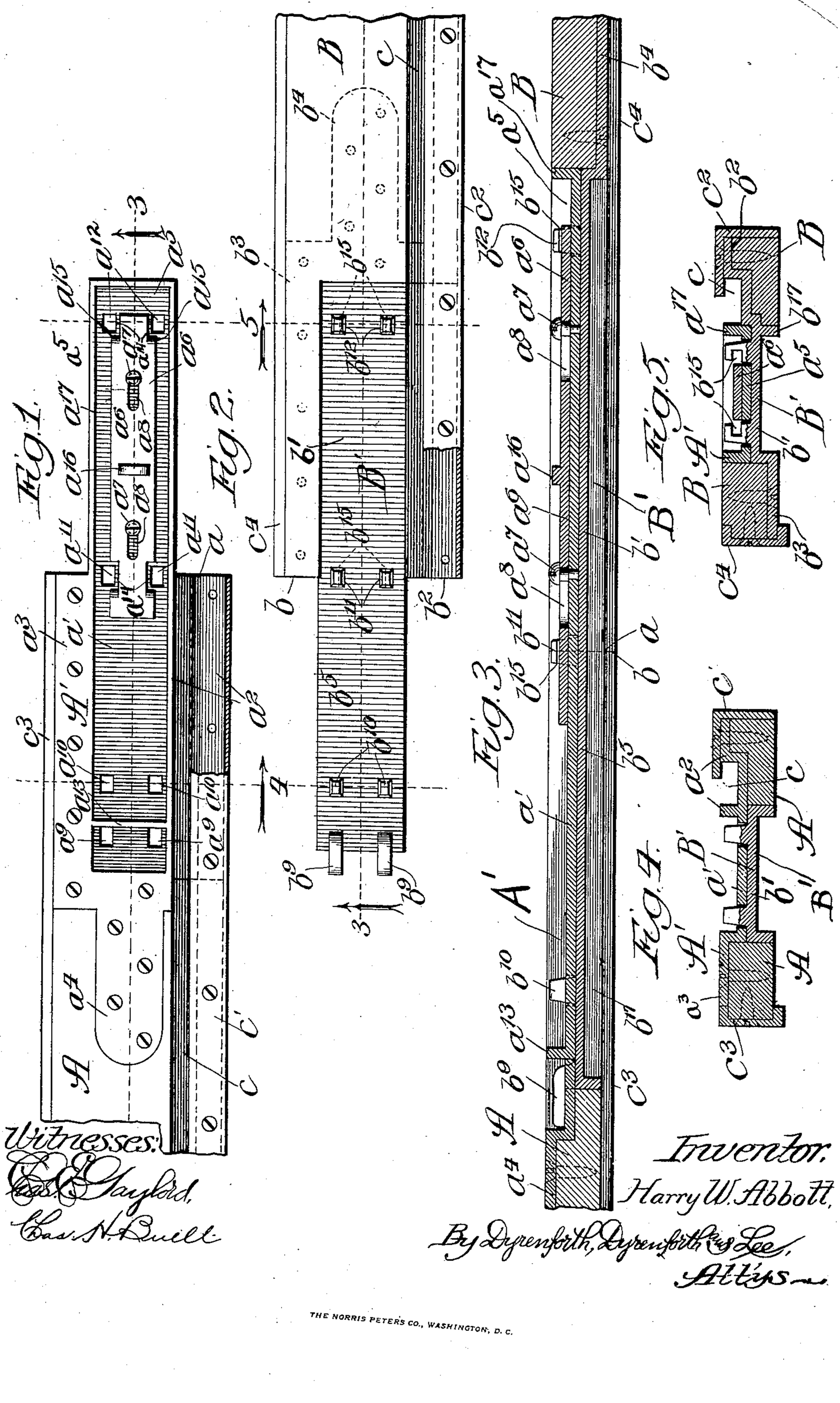
No. 862,531. PATENTED AUG. 6, 1907.

H. W. ABBOTT.

SECTIONAL STRAIGHT EDGE.

APPLICATION FILED JULY 17, 1906.



UNITED STATES PATENT OFFICE.

HARRY W. ABBOTT, OF CHICAGO, ILLINOIS.

SECTIONAL STRAIGHT-EDGE.

No. 862,531. Specification of Letters Patent. Patented Aug. 6, 1907.

Application filed July 17, 1906. Serial No. 269,983.

To all whom it may concern:

Be it known that I, HARRY W. ABBOTT, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Sectional Straight-Edge, of which the following is a specification.

My invention relates particularly to straight-edges for use by paper hangers, or others, in cutting and trimming operations; and my primary object is to provide a folding or sectional device of this character having special provision for insuring perfect alinement of the sections and rigidity of connections when the device is extended for use.

The invention is illustrated in its preferred embodiment in the accompanying drawing, in which—

Figure 1 is a broken top plan view of one section of the device; Fig. 2, a similar view of the other section thereof; Fig. 3, a longitudinal sectional view of the device with the parts connected, the section being taken as indicated at line 3 of Figs. 1 and 2; Fig. 4, a section taken as indicated at line 4 of Fig. 1, assuming the sections to be joined as shown in Fig. 3; and Fig 5, a similar section taken as indicated at line 5 of Fig. 1.

In the preferred construction, the straight-edge comprises mainly two wooden sections A and B; and metallic connecting members A^1 B^1 applied, respectively, to the sections A and B. The adjacent ends of the sections A, B are squared as indicated at *a* and *b*, and these ends abut against each other, when the sections are connected, as indicated in Fig. 3. The member A^1 comprises a depressed plate a^1 having raised lateral attaching wings, or flanges, a^2, a^3, extending to the plane of the end *a;* an end attaching extension a^4*;* an opposite end rectangular extension, or tongue, a^5 projecting past the end *a;* and a locking-plate a^6 slidably connected by means of screws a^7 and slots a^8 with the plate a^1. The plate a^1 is provided with a pair of transversely alined hook-receiving perforations, or sockets, a^9, and three pairs of lug-receiving perforations a^{10}, a^{11}, a^{12}, located in different transverse planes. Adjacent to the perforations a^9 is a transverse flange a^{13}. The locking-plate a^6 is provided laterally with notches a^{14}, adjacent to which are slightly beveled locking-surfaces a^{15}. A knob, or lug, a^{16}, is preferably provided, which serves as a means for actuating the slide. The tongue a^5 has a marginal flange a^{17} on its upper surface, the upper surface of which is flush with the upper surfaces of the flanges a^2, a^3.

The member B^1 comprises a plate b^1 having lateral wings or attaching flanges, b^2, b^3, extending to the end *b* of the section B; an end attaching extension b^4*;* an opposite end rectangular extension, or tongue, b^5, projecting past the end *b;* hooks b^9 projecting from the upper surface of the tongue b^5 past the end of the tongue; and pairs of lugs b^{10}, b^{11}, b^{12} corresponding with the perforations a^{10}, a^{11}, a^{12}. The pairs of lugs b^{11}, b^{12} are provided with horizontal lateral grooves b^{15} which receive the locking shoulders a^{15} of the slide a^6. The plate b^1 has a marginal flange b^{17} on its lower side.

When the sections of the straight-edge are joined, the plate a^1 is superposed upon the plate b^1, the junction end of each wooden section being suitably recessed centrally longitudinally to accommodate the tongue of the opposite connecting-member, as clearly shown in the cross-sectional views. The connecting-members are wholly set into mortises, also, so that no part projects above the surfaces of the straight-edge sections. As shown in Fig. 5, the wing b^2 is disposed above the plate b^1, while the wing b^3 is disposed below said plate. A groove *c* extends along the upper surface of the straight-edge near one lateral edge thereof, and this groove extends through the flanges a^2, b^2 of the members A^1, B^1, as shown. Angle-bars c^1 c^2 are applied to the sections A, B, the horizontal flanges of said bars projecting somewhat over the groove *c*. These bars terminate at the junction ends of said sections, and abut against each other when the sections are connected. The groove *c* forms a guide for a trimmer, as will be readily understood by those skilled in the art. U-shaped metal bars c^3 c^4 are applied as binding members at the opposite lateral edge of the straight-edge, and these bars abut against each other when the sections are connected, as indicated in Fig. 3. As shown in the cross-sections, the straight-edge rests, in use upon the lateral metallic binding members.

From the foregoing description, the manner of joining and disconnecting the sections will be readily understood. Assuming the locking plate a^6 to be in the position indicated, the hooks b^9 may be passed through the perforations a^9 from below, and the sections brought into alinement, the lugs b^{10}, b^{11}, b^{12} entering the corresponding perforations a^{10}, a^{11} and a^{12}. The slide a^6 may then be moved to the right from the position shown, causing the locking shoulders a^{15} to pass beneath the locking shoulders represented by the upper walls of the slots b^{15} in the lugs, thereby firmly connecting the sections together. In bringing the sections into alinement, the tongue of each section enters the corresponding socket of the other section, and the shoulders represented by the ends *a*, *b* of the sections are brought into abutting contact. The tongues thus fit accurately in their sockets, and the ends of the tongues abut against the base walls of their sockets, as clearly shown in Fig. 3. Thus, provision is made for holding the sections in perfect alinement with each other; and it will be noted that any tendency of the sections to move laterally with relation to each other is resisted by the tongues and also by the lateral shoulders flanking the tongues and represented by the ends of the wooden sections. Any flexing of the straight-

edge in a plane perpendicular to a side of the straight-edge is resisted by the hooks b^9 at one end of the connecting members and by the locking plate a^6 intermediately and at the other end of the connecting members.

It will be readily understood that changes in details of construction within the spirit of my invention may be made, hence no undue limitation should be understood from the foregoing detailed description.

What I regard as new, and desire to secure by Letters Patent, is—

1. A straight-edge comprising a section equipped with a connecting member provided with a socket, a disconnectible section equipped with a connecting member provided with a hook adapted to enter said socket, and additional lugs and sockets serving in maintaining said connecting members in rigid relation to each other, the whole forming a continuous straight-edge with unobstructed straight surfaces, for the purpose set forth.

2. A straight-edge comprising a section equipped with a connecting member provided with a socket, a section equipped with a connecting member provided with a hook entered in said socket, additional sockets and lugs entered therein joining said connecting members, and a slidable locking plate engaging said lugs, for the purpose set forth.

3. A straight-edge comprising two disconnectible sections, each equipped at its junction end with a projecting rectangular tongue and with a socket receiving the tongue of the companion section, transverse lugs and sockets joining said sections, and a locking device preventing separation, the whole forming a continuous straight-edge with unobstructed straight surfaces, for the purpose set forth.

4. A straight-edge comprising a section equipped with a connecting member provided with hook-receiving sockets and lug-receiving sockets, a locking plate slidingly connected with said connecting member, and a section equipped with a connecting member provided with hooks and recessed lugs adapted to enter said sockets, the recessed lugs adapted for engagement with the locking plate, for the purpose set forth.

5. A straight-edge comprising sections having abutting ends equipped with superposed connecting members having projecting tongues, each section having a socket for the tongue of the companion member, hook and lug receiving sockets on one of the connecting members, hooks and lugs on the other connecting member entered in said last-named sockets, and a locking-plate carried by the socket-equipped connecting member and located beneath the surrounding surface of the straight-edge, for the purpose set forth.

6. A straight-edge comprising a section mortised to receive a connecting member and to afford a socket for the tongue of a companion connecting member, a connecting member set in the mortise of said section and equipped with lateral flanges having ends terminating flush with the junction end of said section, said connecting member having a centrally located projecting tongue, a companion section mortised to receive a connecting member and to afford a socket for the tongue of the companion connecting member, a connecting member set in the mortise of said second-named section and equipped with lateral flanges having ends terminating at the junction end of the section, said second-named connecting member having a projecting tongue, hooks and lugs at one side of one of said connecting members, and sockets in the other connecting member receiving said hooks and lugs, for the purpose set forth.

HARRY W. ABBOTT.

In presence of—
L. HEISLAR,
J. H. LANDES.