No. 837,661. PATENTED DEC. 4, 1906.

P. F. BOLTON.

COMPOUND LUMBER.

APPLICATION FILED NOV. 10, 1906.

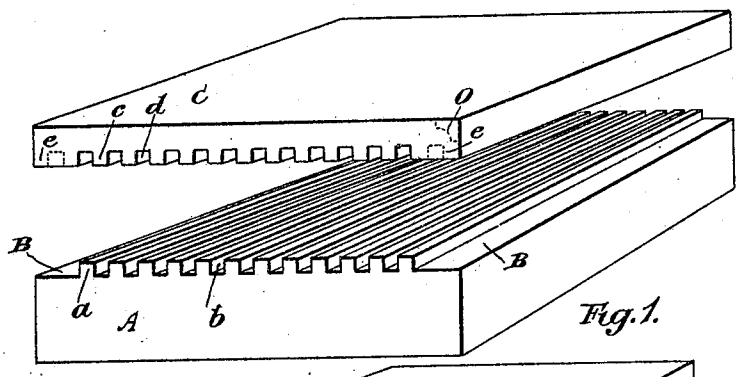

Fig. 1.

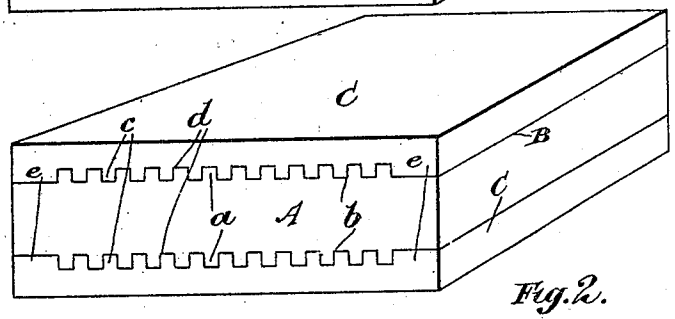

Fig. 2.

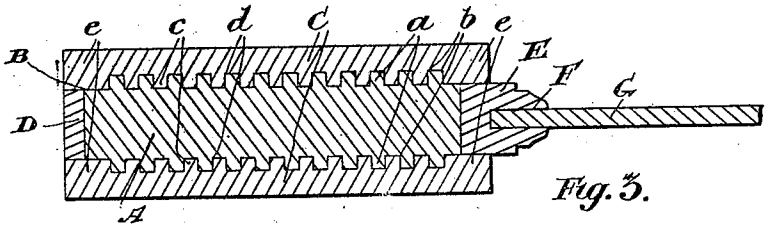

Fig. 3.

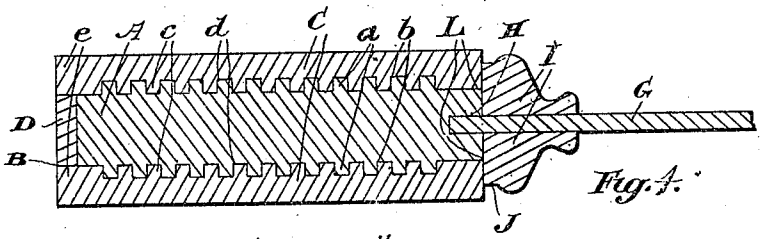

Fig. 4.

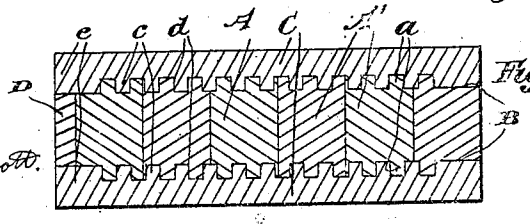

Fig. 5.

Witnesses.
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UNITED STATES PATENT OFFICE.

PAUL FRANKLIN BOLTON, OF TORONTO, ONTARIO, CANADA.

COMPOUND LUMBER.

No. 837,661. Specification of Letters Patent. Patented Dec. 4, 1906.

Application filed November 10, 1905. Serial No. 286,742.

To all whom it may concern:

Be it known that I, PAUL FRANKLIN BOLTON, a subject of the King of Great Britain, residing in the city of Toronto, in the county of York, in the Province of Ontario, Canada, have invented certain new and useful Improvements in Compound Lumber, of which the following is a specification.

My invention relates to improvements in compound lumber; and the object of my invention is to construct compound lumber so that it may have additional strength at the edges and that will permit of being worked to a finer finish by planing freely without exposing the inferior wood of which the base is composed; and it consists, essentially, of the base composed of inferior wood and provided on one of its faces with projections and recesses, the recesses essentially being wide at the edge thereof, and a facing composed of a better class of wood and also provided on one of its faces with projections and recesses, the projections being wide at the edge thereof and fitting in the wide recesses of said base, the other projections of said facing fitting in the other recesses of said base and the projections of said base fitting in the recesses of said facing, the parts being pressed together so as to form a substantially integral body.

Figure 1 is a general perspective view of my preferred form of compound lumber, showing the parts separated. Fig. 2 is a perspective view of my compound lumber composed of a base and two facings, the component parts being secured together. Figs. 3 and 4 are horizontal cross-sections through one of the stiles of a door and part of the panel; and Fig. 5 is a horizontal cross-section through one of the stiles of a door, showing an alternative form of construction for the base.

In the drawings like characters of reference indicate corresponding parts in each figure.

It is well known that the better class of woods are becoming so scarce that their use entirely in manufacturing lumber into doors, wainscoting, windows, &c., renders these articles of manufacture much too expensive, and it is my object to provide compound lumber that will be durable and have a fine finish and appearance, so that the before-mentioned articles of manufacture can be manufactured and sold much cheaper than would be possible if they were constructed entirely of the better class of woods.

According to my preferred form of construction the base A (which is made of inferior wood, such as pine) is constructed on one of its faces with tongues *a* and grooves *b*. It will be noticed that at the edge of the base are wide spaces, recesses, or grooves B. The facing C (which is composed of the better class of woods, such as oak) is constructed on one of its faces with tongues *c* and grooves *d*. At the edge of said facing it will be noticed that I provide wide tongues *e*. When the base and facing are placed together, it will of course be understood that the tongues *a* fit in the grooves *d* and that the tongues *c* fit in the grooves *b* and that the tongues *e* fit in the grooves, spaces, or recesses B. The product just described having only one facing will be preferably used for wainscoting. Upon referring to Fig. 2 it will be seen that the base is provided on both sides with tongues and grooves and that fitting thereover are the facings C, constructed as before described. The compund lumber, as shown in Fig. 2, will be preferably used for manufacturing stiles for doors. In order to face the edge of the door with hard wood, the stile is provided with a strip D, which is suitably secured in place to the base A and between the facings C. Also secured to the base A and between the facings is a solid strip of molding E, preferably made of hard wood, in which is formed a kerf, so as to receive a panel G. According to the form shown in Fig. 4 the base A is provided with a kerf H, in which fits the panel G. Two strips of molding I are secured in the position shown. It will be seen that the moldings I are provided with margins J and that they are below the surface of the facings, so that when same are being sandpapered or otherwise finished the molding will not be damaged.

Now by constructing my facing with a wide tongue at each side and constructing the base with wide grooves, spaces, or recesses at each side, into which said tongues fit, I provide an increased amount of the facings at the point where it is most required, adding much strength to the compound lumber and permitting me to work same to a finer finish without danger of exposing the inferior wood of which the base is composed. If the facings were constructed without the wide tongues and grooves, as before described, it would be impossible to hide the joints L, formed where the facings abut the base, be-

cause these joints would be much nearer the outer surface of said facings and yet permit of the construction of the margins J in the moldings I. Therefore I am enabled to construct a door having a finer appearance than is otherwise possible. Another advantage of having the wide tongues and grooves is that in case I have to use a brad at these points it will be understood that the increased amount of material provided by the wide tongues *e* will not be split by said brads. By means of these wide tongues it will be understood that I can use the solid molding E, constructed and placed as shown in Fig. 3, without any possible chance of exposing the inferior base A.

According to the construction shown in Fig. 5 the base A is constructed of a plurality of strips A′, suitably cemented together.

It will of course be understood that together with the compound lumber I will use cementing material, which may or may not be waterproof.

I find by constructing the tongues slightly wider than the grooves that when the component parts of the compound lumber are secured together the tongues will be forced or crowded into the grooves, thus causing a certain amount of side pressure against the walls of the grooves, thus materially increasing the adhesion of the parts. In fact, I find that by this construction even without the use of cementing material it is practically impossible to separate the component parts of the compound lumber without damaging it; but in order to render the product a substantially integral body I use cementing material, so that when the tongues are forced or crowded into their respective grooves there will be absolutely no danger of the separation of the component parts of the compound lumber.

The dotted grooves shown in the facing in Fig. 1 enable me to show substantially an end view of the facings as now manufactured. When I use my compound lumber, as wainscoating, it will be understood that I may provide the edges of same with a molding, such as is shown by dotted lines at O, without any fear of exposing the inferior base A and without materially decreasing the strength of the facing. Now upon inspecting Fig. 1 it will be seen that if the facing C were constructed with the dotted grooves it would be impossible to provide the said facing with a beading, as before described, because the facing at this point would be too thin and there would be great danger of cutting through to the inferior base. Even were the facing not cut through it will be understood that the thickness of the material between the molding and the corner of the dotted groove would be very much too little, making it almost certain that the facing would split at this thin part, and it certainly would split under changes of temperature. The thickness of the facing C is of course exaggerated, and therefore it will be understood by one skilled in this art why it would be impossible to provide the margins J and yet hide the joints L were the facings constructed after the manner now practiced in making compound lumber.

I hereby claim that changes may be made in the shape of the projections and recesses and in other particulars without departing from the spirit of my invention.

What I claim as my invention is—

1. As a new article of manufacture, compound lumber comprising a base composed of inferior wood provided on one of its faces with projections and recesses, the recesses essentially at the edge thereof being wide, and a facing composed of a better class of wood, and also provided on one of its faces with projections and recesses, the projections at the edge thereof being wide and fitting in the wide recesses of said base, the other projections of said facing fitting in the other recesses of said base, and the projections of said base fitting in the recesses of said facing, the parts being pressed together so as to form a substantially integral body.

2. As a new article of manufacture, compound lumber comprising a base composed of inferior wood provided on one of its faces with projections and recesses, the recesses essentially at the edge thereof being wide, and a facing composed of a better class of wood, and also provided on one of its faces with projections and recesses, the projections at the edge thereof being wide and fitting in the wide recesses of said base, the other projections of said facing fitting in the other recesses of said base, and the projections of said base fitting in the recesses of said facing, the parts being pressed together, and waterproof cement, whereby said component parts are secured together so as to form a substantially integral body.

3. As a new article of manufacture, compound lumber comprising a base composed of inferior wood constructed on one of its sides with tongues and grooves, the grooves at the sides thereof being wide, and a facing composed of a better class of wood and constructed on one of its sides with tongues and grooves, the tongues at the side thereof being wide and fitting in the wide grooves in said base, the other tongues of said facing fitting in the other grooves of said base, and the tongues of said base fitting in the grooves of said facing, the parts being pressed together so as to form a substantially integral body.

4. As a new article of manufacture, compound lumber comprising a base composed of inferior wood provided on one of its faces with projections and recesses, the recesses essentially at the edge thereof being wide, and a facing composed of a better class of

wood, and also provided on one of its faces with projections and recesses, the projections at the edge thereof being wide and fitting in the wide recesses of said base, the other projections of said facing fitting in the other recesses of said base, and the projections of said base fitting in the recesses of said facing, the parts being pressed together, and cement whereby said component parts are secured together so as to form a substantially integral body.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

PAUL FRANKLIN BOLTON.

Witnesses:

EGERTON R. CASE,

H. G. SHARPE.