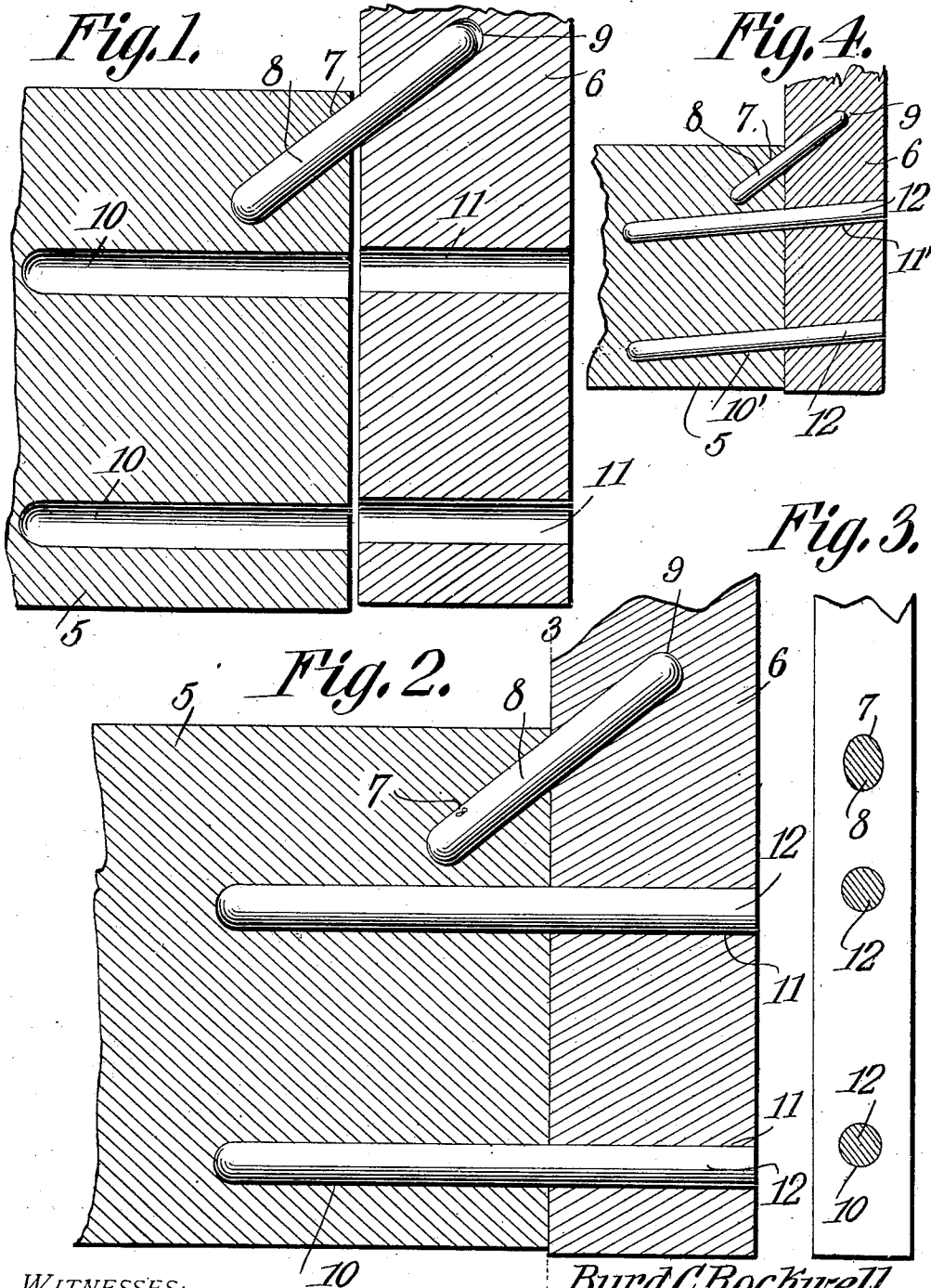


No. 863,650.

PATENTED AUG. 20, 1907.

B. C. ROCKWELL.
DOWEL FOR DOOR CONSTRUCTION.

APPLICATION FILED JUNE 28, 1906.



WITNESSES:

E. J. Hunt
L. J. Allen

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UNITED STATES PATENT OFFICE.

BYRD C. ROCKWELL, OF MALVERN, ARKANSAS.

DOWEL FOR DOOR CONSTRUCTION.

No. 863,650.

Specification of Letters Patent.

Patented Aug. 20, 1907.

Application filed June 28, 1906. Serial No. 323,767.

To all whom it may concern:

Be it known that I, BYRD C. ROCKWELL, a citizen of the United States, residing at Malvern, in the county of Hot Spring and State of Arkansas, have invented a new and useful Dowel for Door Construction, of which the following is a specification.

This invention relates to the construction of doors, window-blinds, sashes and the like and has for its object to provide a knock-down door the construction and relative disposition of the several parts of which is such as to permit the same to be readily assembled and rigidly secured together without the employment of screws, nails and similar fastening devices.

A further object is to provide a knock-down door the longitudinal and transverse rails of which are held together by a bonding member, said rails being formed with openings for the reception of dowel pins whereby when the pins are driven home an upward draw will be exerted on the bonding member by the rail and a downward draw by the stile, thus preventing sagging or displacement of the corner or corners of the door.

A still further object of the invention is to generally improve this class of devices so as to increase their utility, durability and efficiency.

With these and other objects in view the invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, and illustrated in the accompanying drawings, it being understood that various changes in form, proportions and minor details of construction may be resorted to within the scope of the appended claims.

In the accompanying drawings forming a part of this specification: Figure 1 is a longitudinal sectional view of a corner of the knock-down door constructed in accordance with my invention showing the bonding member in position and the dowels ready to be driven home. Fig. 2 is a similar view showing the bonding member locked in position. Fig. 3 is a vertical sectional view taken on the line 3—3 of Fig. 2. Fig. 4 is a longitudinal sectional view illustrating a modified form of the invention.

Similar numerals of reference indicate corresponding parts in all of the figures of the drawings.

The improved locking means may be used for binding the stiles and rails of doors, window-blinds, sashes and the like and by way of illustration is shown applied to a knock-down door of the ordinary construction in which 5 designates a portion of the lower transverse rail and 6 the vertical rail or stile. The upper end of the lower rail is provided with a diagonal opening 7 adapted to receive one end of a bonding member 8 preferably in the form of a dowel-pin as shown, there

being a similar diagonal recess or opening 9 formed in the adjacent face of the longitudinal rail or stile 6 for the reception of the opposite end of said bonding member.

The rails 5 and 6 are provided with straight or inclined openings 10 and 11 for the reception of dowel-pins 12, said openings being so arranged that when the dowel-pins are inserted therein and driven home the rail 5 will be forced upwardly and stile 6 downwardly thereby exerting a draw against the bonding member and effectually locking the rails together without the employment of nails, screws or similar fastening devices.

In assembling the door one end of the bonding member is first introduced into the opening or recess 7 after which the rail or stile 6 is driven in place which causes the openings 11 in the rails 6 to be slightly elevated above the openings 10 in the rails 5. The pins 12 are then inserted in the openings 11 and driven home with a hammer, or other suitable tool thus forcing the transverse rail upwardly to the position shown in Fig. 2 of the drawing and causing the adjacent end of the bonding member 8 to engage the end of the slot 9. If desired the dowels may be retained in position by means of glue, or other adhesive material but this is not necessary as the dowels will be preferably made large enough to fit snugly within the openings in the longitudinal and transverse rails of the door so that said rails may be locked together without the employment of said adhesive material.

In Fig. 4 of the drawings there is illustrated a modified form of the invention in which the openings 10' and 11' in the rail and stile, respectively, are inclined downwardly, as shown, thereby to assist in locking or binding the parts together. It will be understood, that these openings may be disposed at an angle or inclination with respect to the bottom of the door without departing from the spirit of the invention.

While the locking means is principally designed for use in connection with doors it is obvious that the same may be used with equally good results on window-blinds, sashes or wherever a locking means of this character is found desirable.

From the foregoing description it will be seen that there is provided an extremely simple, inexpensive and efficient device by means of which the sagging of the corners of screen doors or similar closures is effectually overcome.

Having thus described the invention what is claimed is:

1. In a door construction, the combination with the longitudinal and transverse rails having openings formed therein and initially disposed out of alinement with each

other, of a bonding member seated in the rails at an angle to the meeting faces thereof, and a dowel pin engaging the walls of said openings for alining the same thereby exerting a draw against the bonding member.

- 5 2. In a door construction, the combination with the longitudinal and transverse rails having diagonally disposed seating recesses formed in their meeting faces and provided with openings arranged at an angle to the seating recesses and initially disposed out of alinement with each
10 other, of a bonding member seated in the diagonal re-

cesses, and dowel pins engaging the walls of said openings for alining the same thereby exerting a draw on the bonding member.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two 15 witnesses.

BYRD C. ROCKWELL.

Witnesses:

F. M. LINDBLAD,
J. N. SMITH.