H. WOOLARD & J. H. F. LODGE.

SLIDING AND FOLDING PARTITION AND DOOR.

APPLICATION FILED JAN. 24, 1914.

1,169,904.

Patented Feb. 1, 1916.

3 SHEETS—SHEET 1.

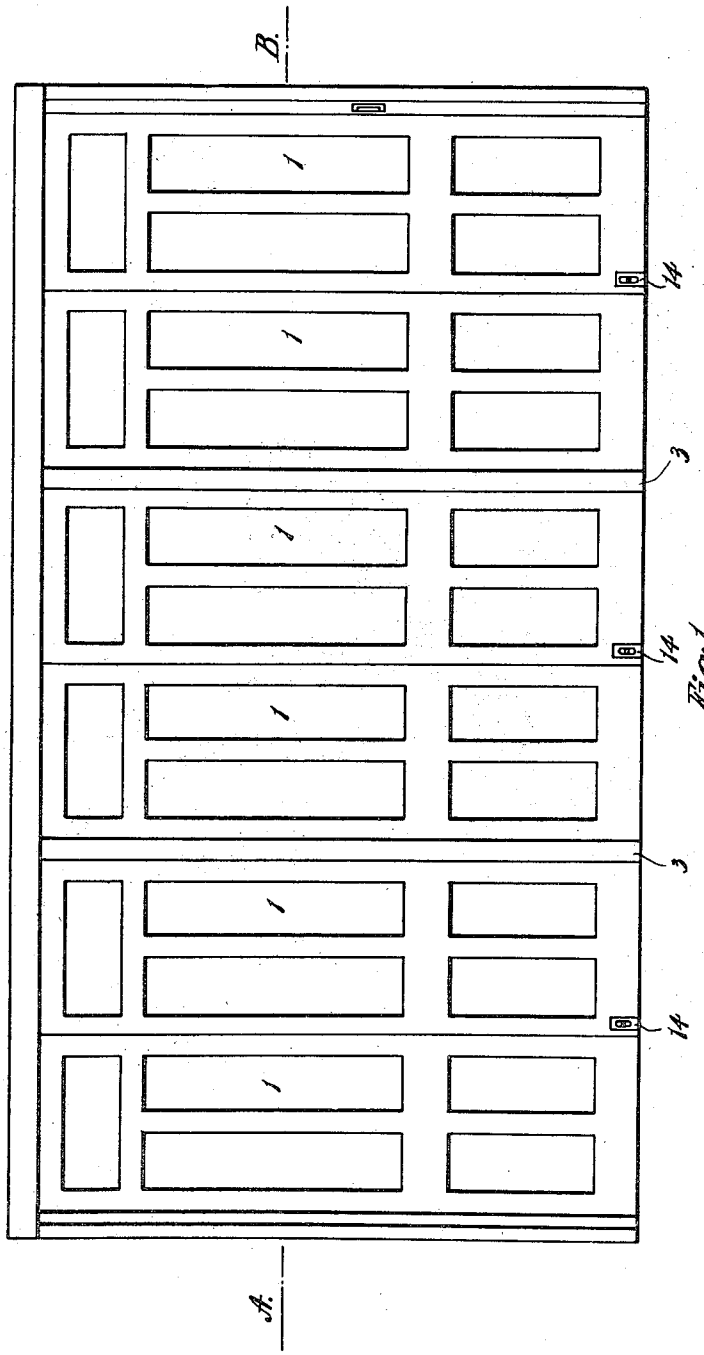


Fig. 1.

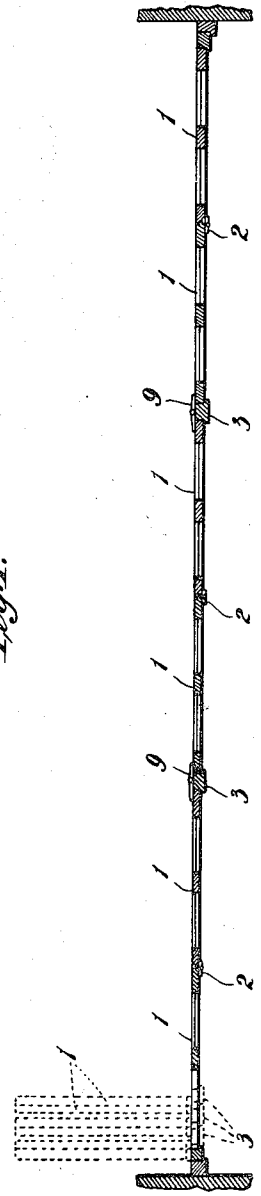


Fig. 2.

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3 SHEETS—SHEET 2.

Fig: 3.

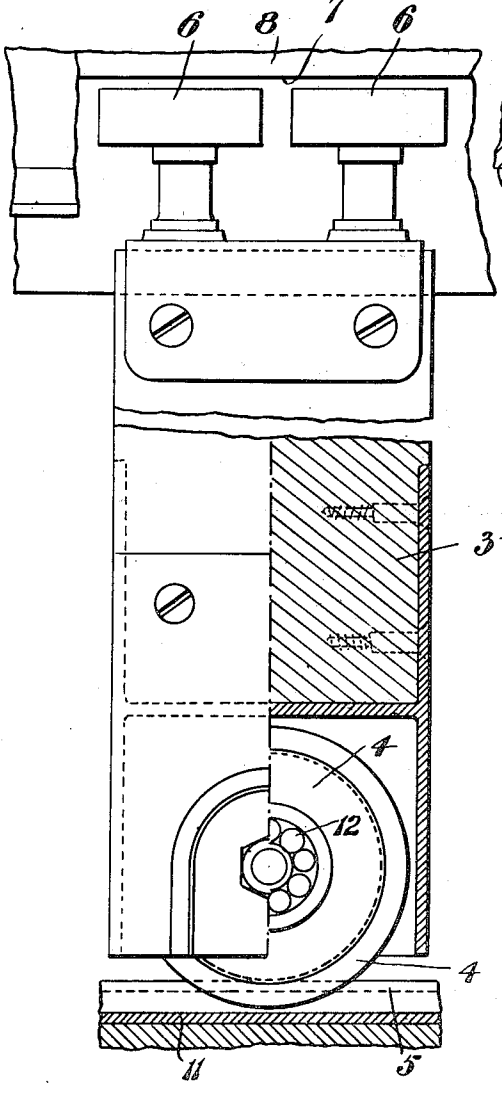
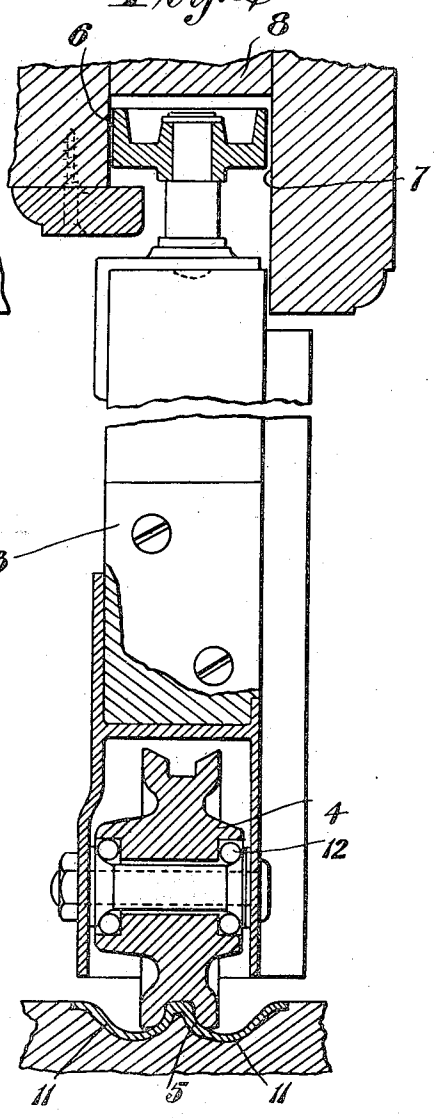


Fig: 4.



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3 SHEETS—SHEET 3.

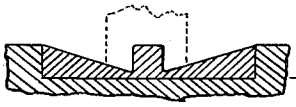


Fig: 5.

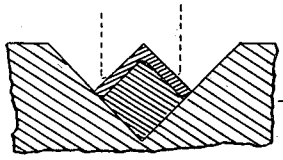


Fig: 6.

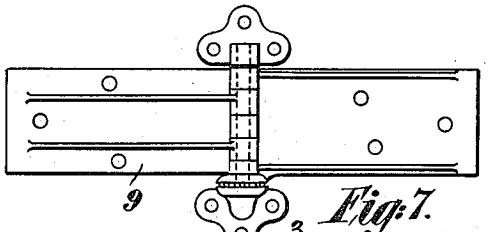


Fig: 7.

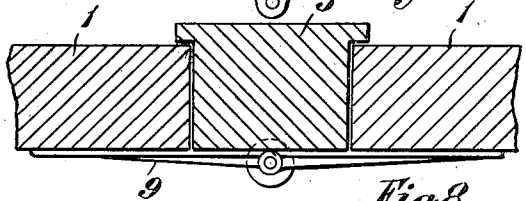


Fig: 8

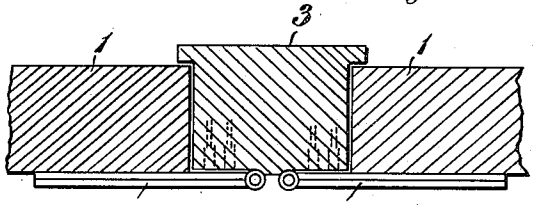


Fig: 9.

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UNITED STATES PATENT OFFICE.

HERBERT WOOLARD, OF STEVENAGE, AND JOHN HENRY FREDERICK LODGE, OF NEW BARNET, ENGLAND.

SLIDING AND FOLDING PARTITION AND DOOR.

1,169,904. Specification of Letters Patent. Patented Feb. 1, 1916.

Application filed January 24, 1914. Serial No. 814,192.

To all whom it may concern:

Be it known that we, HERBERT WOOLARD, a subject of the King of Great Britain, residing at Bowes Cottage, 60 Walkern Road, Stevenage, in the county of Herts, England, and JOHN HENRY FREDERICK LODGE, a subject of the King of Great Britain, residing at Reno, Potters Road, New Barnet, in the county of Herts, England, have invented new and useful Improvements in and Relating to Sliding and Folding Partitions and Doors, of which the following is a specification.

Our invention relates to improvements in those sliding and folding partitions and doors which are now very generally employed to divide large rooms such as class rooms in schools and for similar purposes or as doors to workshops and the like places where large entrances are often necessary.

It is now usual to support the hinged leaves of such partitions or door on swiveling brackets and runners and it is found in practice that said swiveling brackets and runners are liable to get out of order and prove unsatisfactory in use, when supported in any position other than central, owing to the lateral strain on such runners and the necessarily small dimensions that are possible, to allow of the leaves of the partition folding against each other.

According to our invention a sliding and folding partition or door is so arranged that each pair of leaves of the partition is hinged together and hinged to and supported by uprights respectively provided at one end with a runner adapted to engage upon and run over a guide rail and at the other end with guide members running in a channel formed in a beam carried across the room in the same vertical plane as the guide rail and adapted to prevent the upright from turning when in use.

Our invention is illustrated by way of example in the accompanying drawings, in which—

Figure 1 shows a side elevation. Fig. 2 shows a sectional plan view on the line A—B of Fig. 1. Fig. 3 shows a detail side view partly in section of an upright. Fig. 4 shows an end view partly in section of the upright shown in Fig. 3. Figs. 5 and 6 show detail views of alternative forms of guide rails. Fig. 7 shows a side view of a double hinge for attaching the leaves to an upright. Fig. 8 shows a plan view of the hinge shown in Fig. 7, and Fig. 9 shows an alternative form of hinge.

Referring now to the drawings—We prefer to hinge each pair of leaves 1 of the partition together by suitable hinges 2, while each pair of leaves are hinged to and supported by uprights 3 conveniently provided at the lower ends with runners 4 as shown in Figs. 3 and 4 adapted to engage upon and run over guide rails 5 arranged upon the floor of the room or the like. The upper end of said upright 3 is provided with a pair of wheels 6 adapted to prevent the upright 3 from turning when in use. These wheels 6 are adapted to run in a channel 7 formed in a beam 8 across the room at a convenient height in the same vertical plane as the said guide rail 5 on the floor of the room. The width of said uprights 3 is preferably such as to correspond approximately with the thickness of a pair of leaves 1 when the latter are in the folded position shown in dotted lines in Fig. 2.

As will be readily understood from Figs. 1 and 2 if each pair of leaves 1 in a partition or door are hinged on their outer edges respectively to a pair of uprights 3 said leaves can be extended to a position in which they are in the same vertical plane as the guide rail 5 on the floor or folded to a position at right angles to said guide rail, by moving apart said uprights or bringing said uprights together. The employment of the said uprights 3 to support the leaves of the partition allows of the runners 4 being mounted on the lower ends of said uprights and if desired the diameter of said runners 4 can correspond approximately with the width of said uprights 3.

If a divided partition is required, the leaves 1 between a pair of uprights 3 are not hinged together, thus allowing of the two portions of the partition being folded back against the opposite sides of the room or other place in which the partition is placed.

As will be readily understood from Figs. 3 and 4 the horizontal wheels mounted on spindles projecting from the upper end of an upright 3 are adapted to prevent said upright from turning under any lateral strain developed when the leaves of the

partition are being folded together against the wall of the room or other place in which the partition may be set up.

Each leaf 1 may be hinged to its upright 3 by means of a double hinge 9 as shown in Figs. 7 and 8 or by means of independent hinges 10.

As shown in Fig. 4 the guide rail 5 may be arranged without sharp angles and the flanges 11 on the sides of the rail with curved recesses deeper than the flanges of the runners 4 when in engagement with said rail, thus allowing of said rail being easily swept and the runners not being fouled by any small article such as a pencil which may be dropped into said side flanges. As shown the runners 4 are conveniently mounted upon ball bearings 12.

In Figs. 5 and 6 we illustrate by way of example alternative forms of guide rails.

In an alternative form of our invention runners 4 may be arranged at the upper ends of the uprights 3 adapted to run over a guide rail arranged on a beam carried at a suitable height across the room; the lower ends of said uprights having guide pins or wheels running in a channel on the floor.

The end upright 3 may be provided with a pull handle 13 by which the partition may be conveniently extended across the room or the like or turned back into the folded position. The leaves of the doors are conveniently provided with the usual bolts 14.

What we claim is:—

A sliding and folding partition comprising a plurality of movable uprights and a plurality of leaves adapted to fold upon each other hinged to and supported by said uprights, adjacent leaves being hinged to an intermediate part of one side face of an upright and the width of a pair of said leaves when in the folded position corresponding with the width of said uprights.

In testimony wherof we have signed our names to the specification in the presence of two subscribing witnesses.

HERBERT WOOLARD.
JOHN HENRY FREDERICK LODGE.

Witnesses:
ARTHUR J. STEPHENS,
LEONARD E. HAYNES.