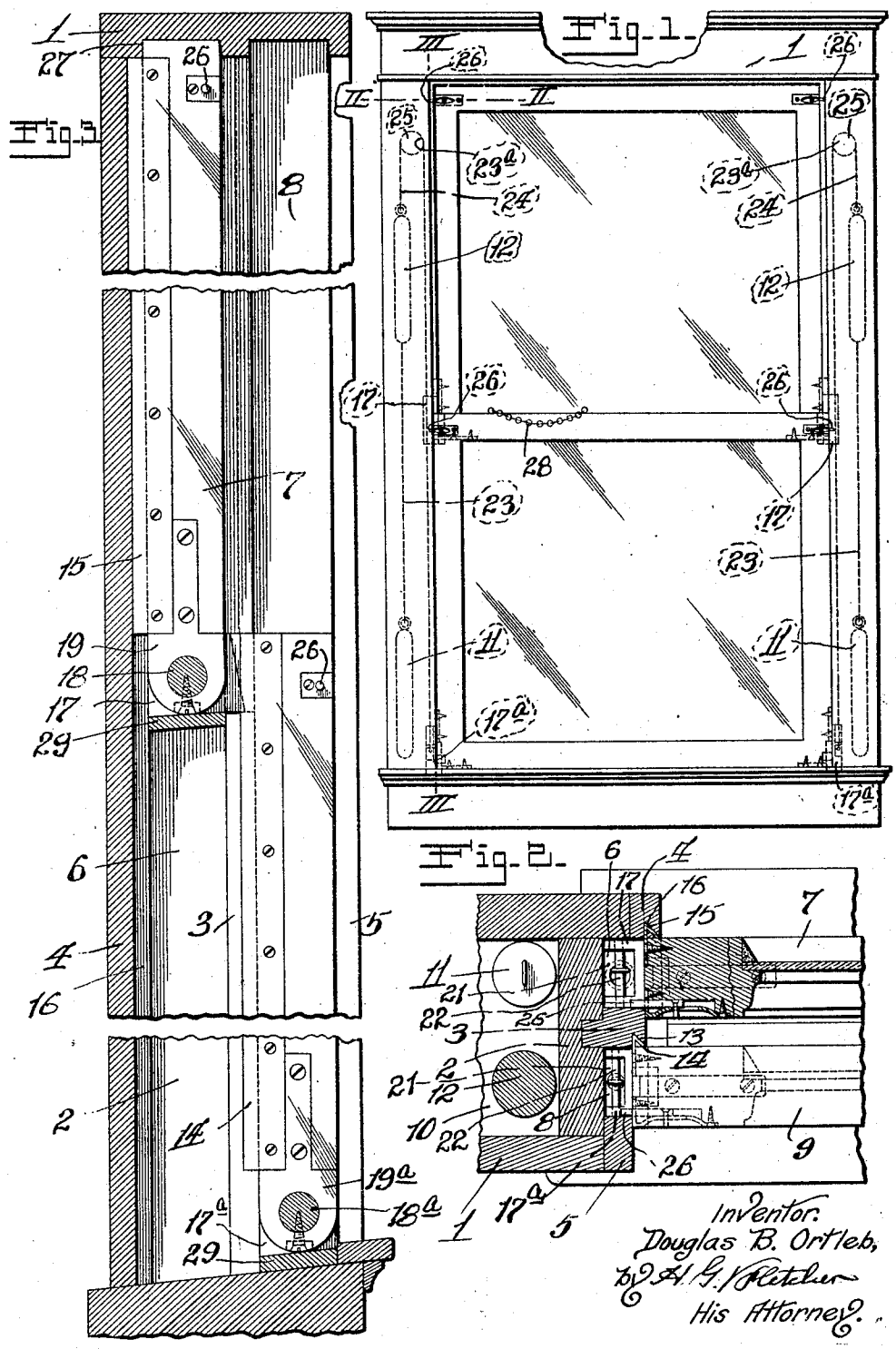
March 24, 1925. 1,530,610

D. B. ORTLEB

WINDOW SASH MOUNTING

Filed Oct. 30, 1922 2 Sheets-Sheet 1



Inventor:
Douglas B. Ortleb,
by A. G. Fletcher
His Attorney.

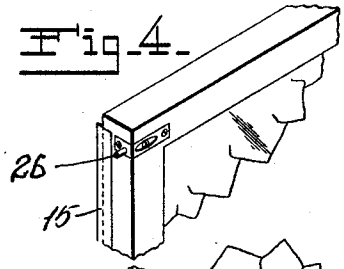
March 24, 1925. 1,530,610

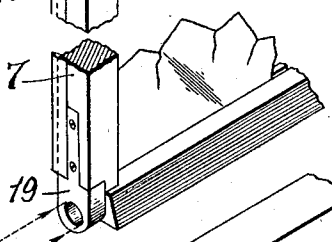
D. B. ORTLEB

WINDOW SASH MOUNTING

Filed Oct. 30, 1922 2 Sheets-Sheet 2

Fig. 4.





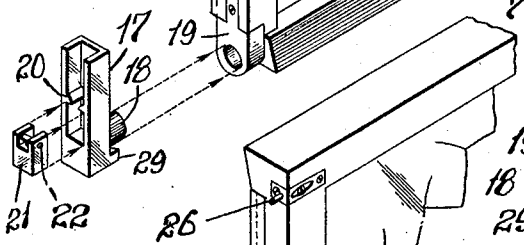


Fig. 5.

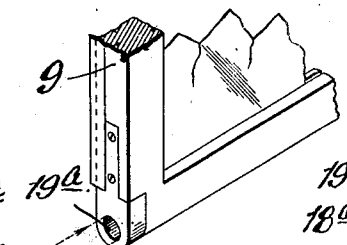


Fig. 6.

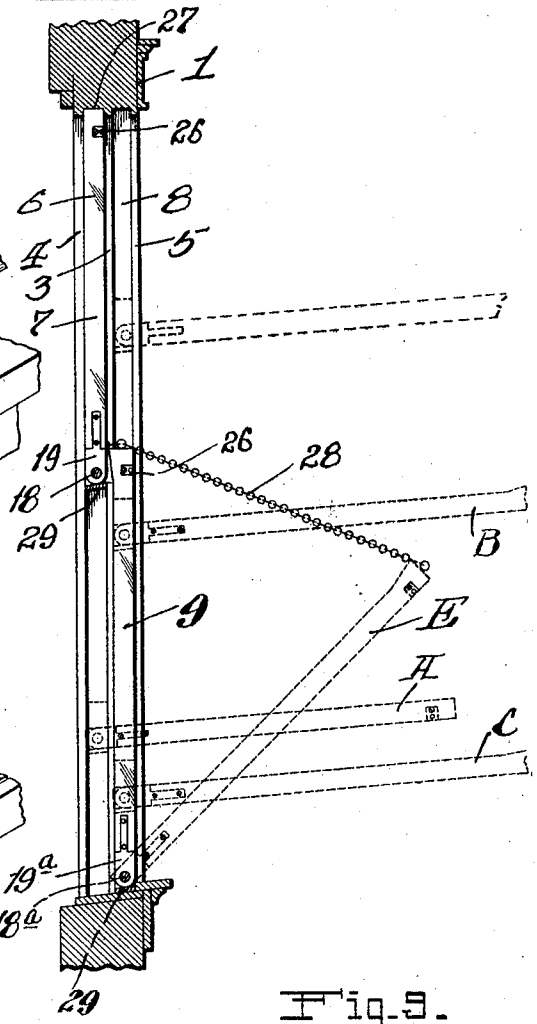


Fig. 7.

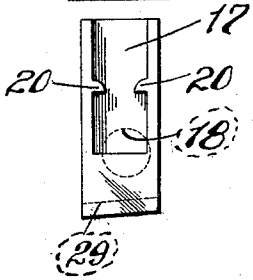


Fig. 8.

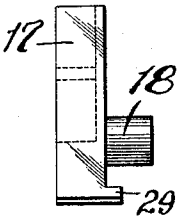
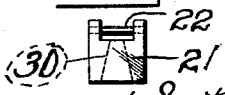


Fig. 9.



Fig. 10.



Inventor:
Douglas B. Ortleb,
by H. G. Fletcher
His Attorney.

Patented Mar. 24, 1925. 1,530,610

UNITED STATES PATENT OFFICE.

DOUGLAS B. ORTLEB, OF ST. LOUIS, MISSOURI.

WINDOW-SASH MOUNTING.

Application filed October 30, 1922. Serial No. 597,808.

To all whom it may concern:

Be it known that I, DOUGLAS B. ORTLEB, a citizen of the United States of America, and a resident of the city of St. Louis and State of Missouri, have invented certain new and useful Improvements in Window-Sash Mountings, of which the following is a specification.

This invention relates to an improvement in window sash frames and has for its primary object the purpose of providing an improvement in sash mountings thereof so that the sashes can be swung from their closed positions, to positions inwardly of the room, so that the outer surfaces of the window pane of each sash can be cleaned within the room, the improvement disclosed in this invention being of a simpler form than the disclosures contained in applicant's pending application, filed March 18, 1922, Serial No. 544,807.

Other and further objects will appear in the specification and be specifically pointed out in the appended claims, reference being had to the accompanying drawings, exemplifying the invention, and in which:—

Figure 1 is an inside elevation of a window, showing the frame and sashes thereof having this improvement applied thereto.

Figure 2 is an enlarged fragmentary transverse section taken approximately on the line II—II of Fig. 1.

Figure 3 is an enlarged vertical section taken approximately on the line III—III of Fig. 1.

Figure 4 is an enlarged fragmentary perspective view of a portion of the upper sash, showing a relatable slidable shoe in dismantled position.

Figure 5 is an enlarged fragmentary perspective view of a portion of the lower sash, showing a relatable slidable shoe in dismantled position.

Figure 6 is a vertical section similar to Fig. 3, showing the window sashes in swung positions.

Figure 7 is an enlarged side elevation of one of a pair of slidable shoes which are used in connection with each window sash.

Figure 8 is an enlarged end elevation of Fig. 7.

Figure 9 is an enlarged plan view of one of a pair of sash securing blocks which are used in connection with each window sash.

Figure 10 is an enlarged side elevation of Fig. 9.

With reference to the accompanying drawings, 1 designates a window frame which is provided with the usual side members 2 each being provided with an intermediately arranged vertically extending guiding strip 3, and secured adjacent one edge of each side member 2 is an outer guiding strip 4, whereas an inner guiding strip 5 is provided adjacent the opposite edge of each of the members 2, the space provided between the strips 3 and 4 forming a guideway 6 for the upper window sash 7, whereas the space provided between the strips 3 and 5 provides a guideway 8 for a lower window sash 9.

The window frame 1 is provided with the usual sash weight pockets 10, each pocket being for the reception of a pair of sash weights 11 and 12, the sash weights 11 being related to the upper window sash 7, whereas the sash weights 12 are related to the lower window sash 9.

From an inspection of Fig. 2, it is to be noted that the lower window sash 9 is wider than the upper window sash 7. This is for the purpose of providing the inwardly swinging of said sashes as well as for making provision for the weather stripping of the sashes. In this connection the opposing guiding strips 3 are each provided with a V-shaped groove 13, and secured to each of the opposing vertical edges of the lower window sash 9 is a metallic triangular strip 14, said strips being for engagement with the respective grooves 13.

A V-shaped groove 15 is vertically extended within each of the guiding strips 4, and for co-operation with each groove 15 is a metallic strip 16, said strips being borne by the upper window sash 7.

Slidably mounted within each guideway 6 is a shoe 17 each being provided with an inwardly projecting pin 18, each pin 18 of each shoe being engaged within a respective bearing 19, a pair of which are carried at the lower end of the upper window sash 7, as shown more clearly in Figs. 3, 4 and 5.

The lower window sash 9 is also provided with a pair of bearings 19^a at its lower end, each of said bearings being co-operable with a pin 18^a of a respective sliding shoe 17^a, the shoes 17 of the upper sash 7 and the shoes 17^a of the lower sash 9 being moved upwardly and downwardly in the respective guide-ways 6 and 8 when said upper and lower sashes are reciprocated.

The shoes 17 and 17^a are each provided

with a pair of retaining lugs 20 and located in each shoe beneath respective pairs of lugs is a block 21 bearing a pin 22, each pin of each block being for the securing of one end of a chain or sash weight cable. Each cable 23 is secured to a pin 22 of a respective upper sash shoe 17, each cable 23 being mounted over a pulley 23^a and secured at its opposite end to a respective upper sash weight 11, whereas a cable 24 is secured to each pin 22 of respective shoes 17^a of the lower sash 9 and wound over pulleys such as 25, said cables being secured at their opposite ends to respective sash weights 12.

Borne by each of the upper and lower sashes is a retaining bolt 26, said bolts of each sash being preferably secured adjacent the upper end thereof and arranged horizontally thereto so that the bolts 26 of the upper sash can be engaged within respective guideways 6 and in which their extended ends will respectively bear against an adjacent disposed guiding strip 3. The retaining bolts 26 of the lower sash 9 are adapted to have their extending ends engaged within respective guideways 8 and in which the extending ends of said bolts will bear against respective guiding strips 5.

From the aforesaid description of this improved invention, it is to be noted that each of the sashes is secured in vertical positions by the engagement of their respective shoes 17 and 17^a and respective retaining bolts 26 within the respective guideways 6 and 8.

When it is desired to clean the window panes of the sashes, the retaining bolts 26 of the lower sash 9 are disengaged from engagement within the respective guideways 8 and the upper end of the sash is swung inwardly within the room. The upper sash 7 is then lowered a short distance so that the upper edge thereof will become disengaged from within the lintel 27, then the retaining bolts 26 are withdrawn from the engagement of the respective guideways 6 and the upper end of said sash is then swung inwardly. This positioning of the sashes, permits one to clean the outer surfaces of the window panes within the room.

If desired the upper sash can be lowered to a desired position, as shown at A in Fig. 6, whereas the lower sash can be moved to any desired position, as shown at B and C in Fig. 6.

After the window panes have been cleaned, the sashes are swung to vertical positions on their respective shoe pins 18 and 18^a and the retaining bolts are engaged within their respective guideways, then the sashes after being mounted in vertical positions can be moved to closed positions.

If it is desired to provide deflected ventilation to a room, the lower sash 9 can be swung to the position indicated at E in Fig. 6, said sash being held in position by a chain or cable such as 28 which is secured at one end to the lower sash and at the opposite end to the upper sash.

Each of the shoes 17 and 17^a is provided with lower arranged ledges 29. These ledges are for the purpose of supporting the sashes in their horizontal extended positions in which the lower portions of the sashes will engage on said ledges.

If a sash rope is to be used instead of a sash chain, the rope is inserted in the tapered opening 30, one of which is formed in each of the blocks and the rope is pulled and held within the tapered opening by a wedging element.

What I claim is:—

1. A window provided with guide-ways, a sash slidably located with respect to said guide-ways, a shoe co-operable with each of said guide-ways and said sash whereby said sash can be swung from said guide-ways, means borne by said sash co-operable with one of said guide-ways for preventing said sash being swung, and means formed on one of said shoes for holding said sash in its swung position.

2. The combination of a window frame, sash guide-ways formed in said frame, a sash, a pair of slidable shoes borne by said sash each being mounted within respective guide-ways, said sash, being swingingly connected to said shoes, each of said shoes bearing a ledge for the support of said sash when said sash is swung to an approximate horizontal position, and a retaining member co-operable with each of said guide-ways for preventing said sash being swung therefrom.

3. The combination of a window frame, sash guide-ways formed in said frame, a sash, a slidable shoe borne by said sash mounted in one of said guide-ways, said shoe having an extending ledge for limiting the swinging movement of said sash, and a retaining member co-operable with one of said guide-ways for preventing said sash being swung therefrom.

4. A window provided with guide-ways, a sash slidably located with respect to said guide-ways, a shoe mounted in each of said guide-ways, said sash being swingingly secured between said shoes, means borne by each shoe for limiting the swinging movement of said sash, and a pair of retaining members each being co-operable with respective guide-ways for holding said sash in vertical position in said guide-ways.

5. In a window, the combination with a window frame having a guide-way formed on each side, a sash having a bearing secured on each side adjacent its lower end, a shoe mounted in each guide-way each having a horizontal projection for engagement with the respective bearings of said sash,

removable means in each shoe for the securing of a sash cord thereto, said sash adapted to be swung from said guide-ways upon the projections of said shoes, and means borne by each of said shoes for supporting said sash in its swung position.

6. The combination of a window frame, sash guide-ways formed in said frame, a sash, a shoe slidable within each of said guide-ways each bearing a horizontally extending pin, said pins of said shoes being for the swinging of said sash, means borne by each of said shoes for supporting said sash in its swung position, and a retaining member co-operable with one of said guide-ways for preventing said sash being swung therefrom.

DOUGLAS B. ORTLEB.