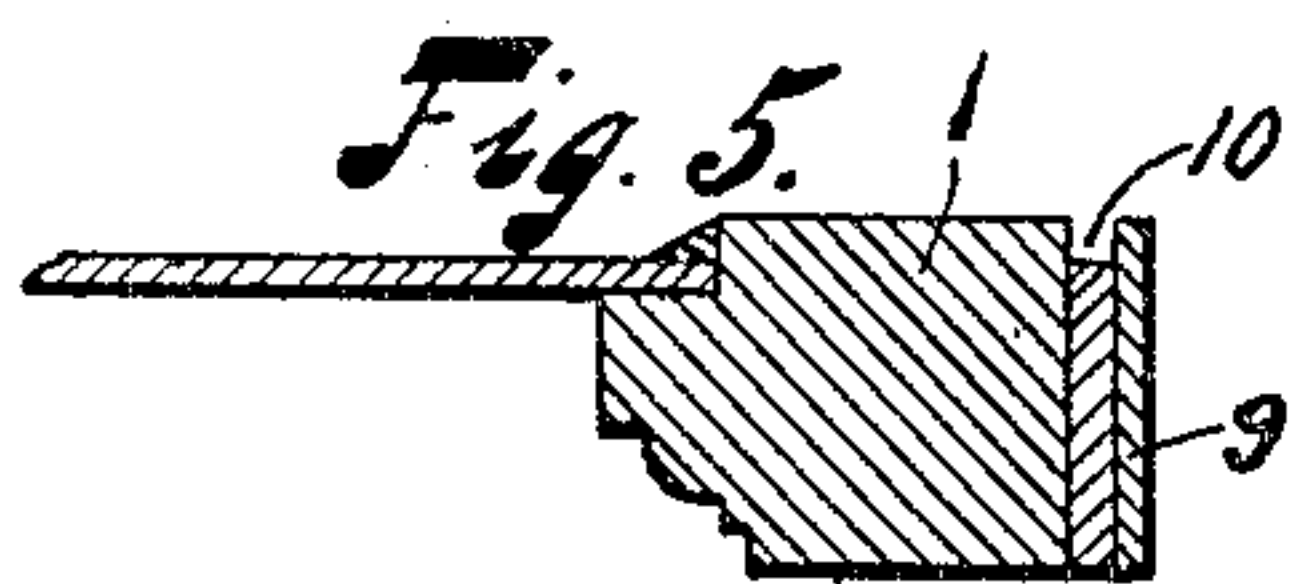
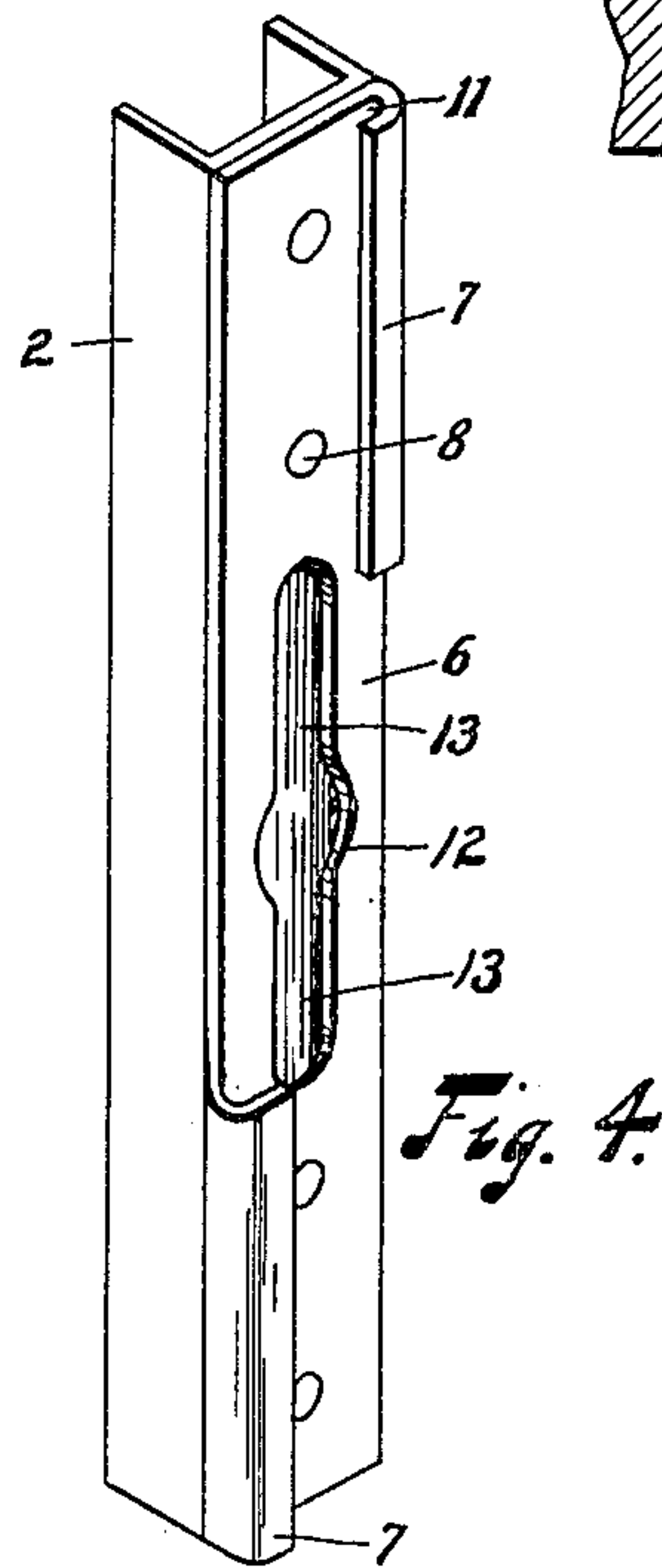
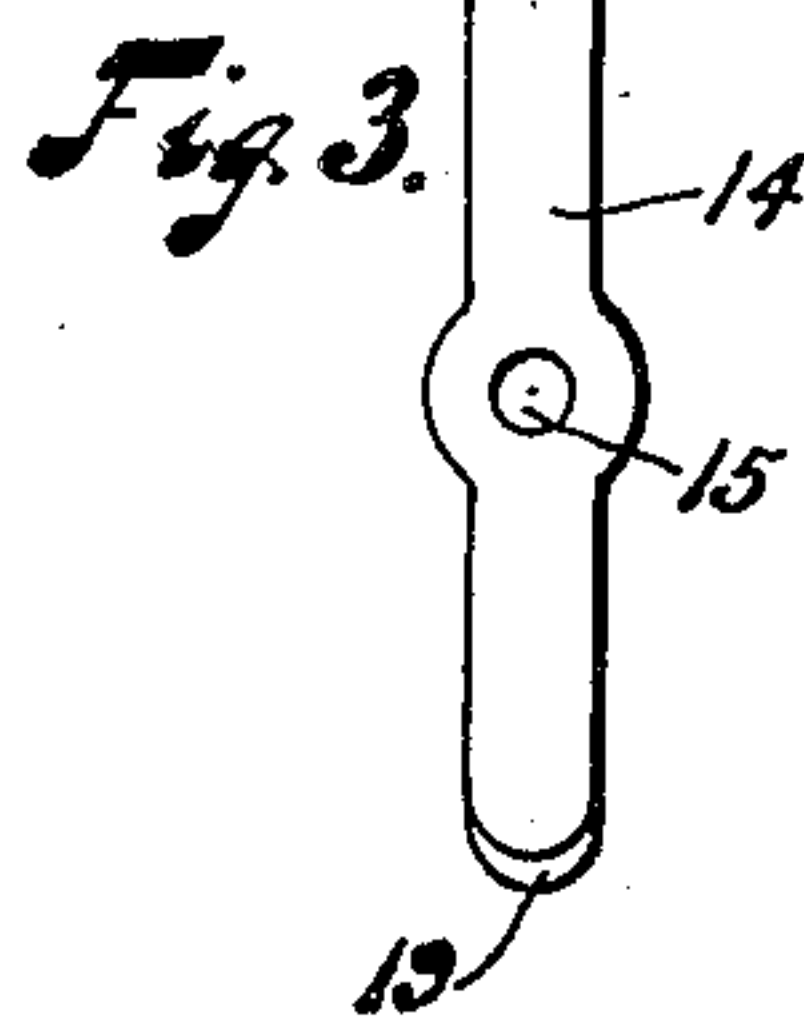
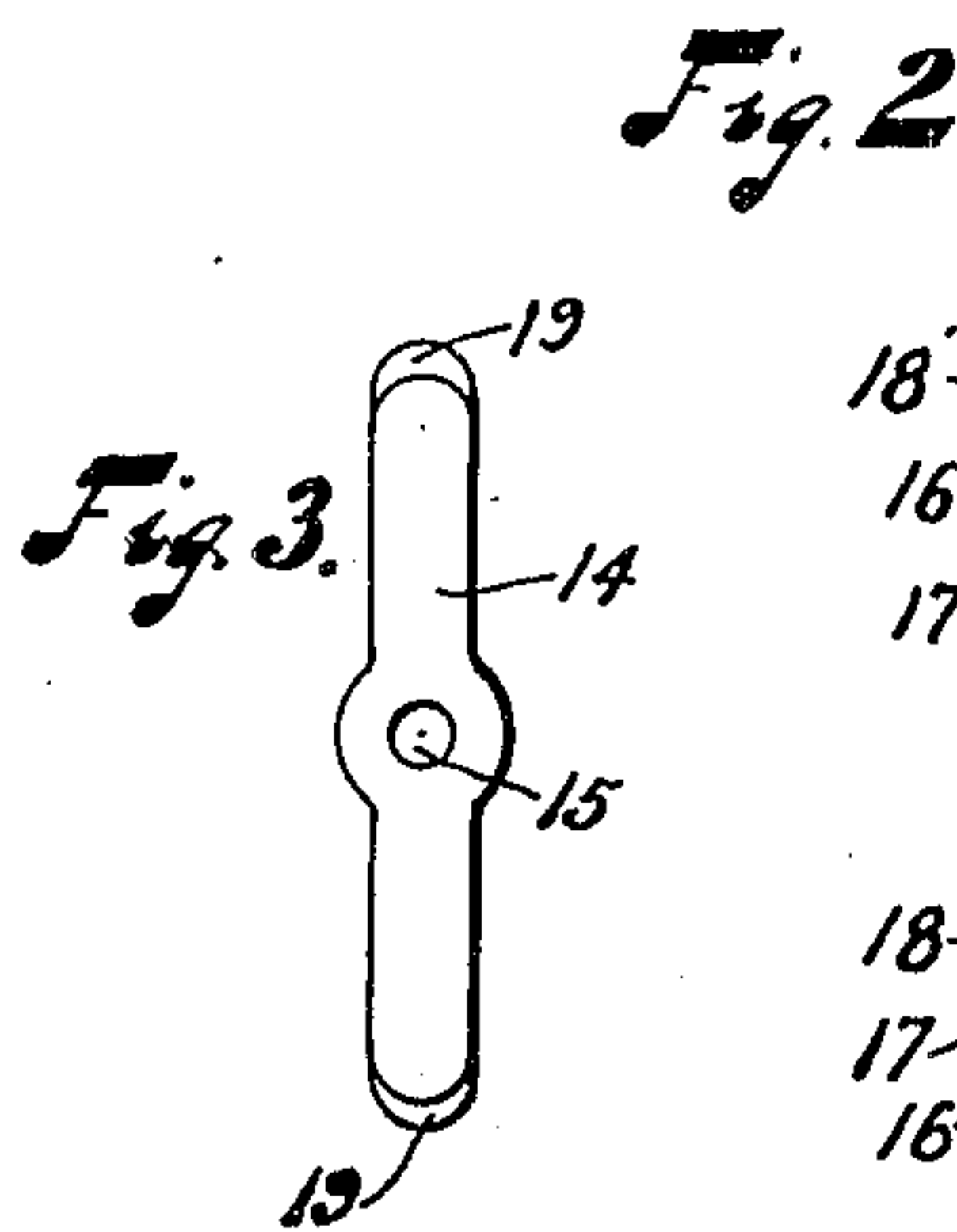
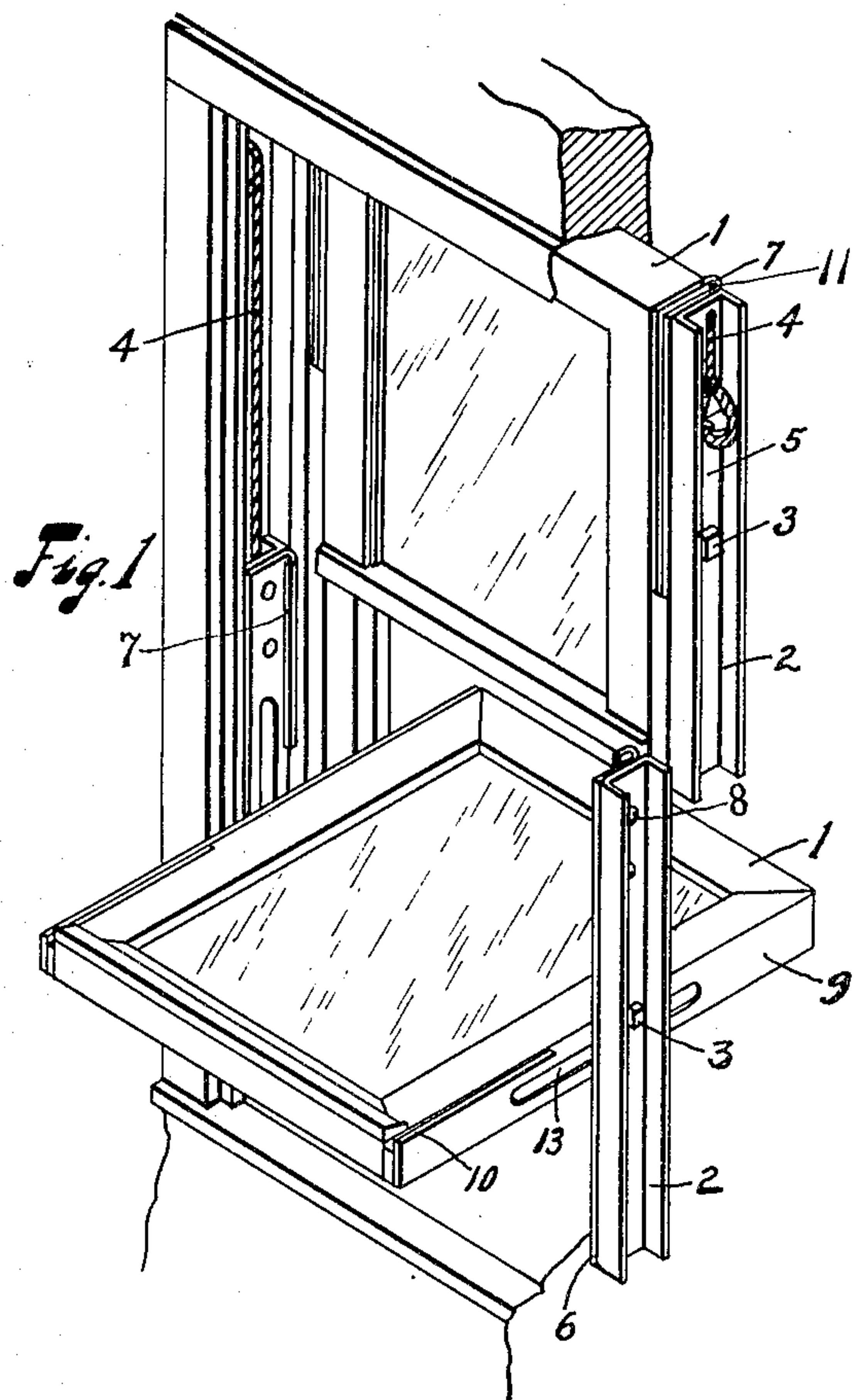


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PATENTED APR. 9, 1907.

F. C. WAGNER & F. G. KOCH.
HORIZONTALLY PIVOTED WINDOW.

APPLICATION FILED APR. 19, 1906.



Witnesses:

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UNITED STATES PATENT OFFICE.

FREDERICK C. WAGNER AND FREDRICK G. KOCH, OF CLEVELAND, OHIO,
ASSIGNORS, BY MESNE ASSIGNMENTS, TO THE MITCHELL REVERSABLE
WINDOW COMPANY, OF FREMONT, OHIO, A CORPORATION.

HORIZONTALLY-PIVOTED WINDOW.

No. 849,585.

Specification of Letters Patent.

Patented April 9, 1907.

Application filed April 19, 1906. Serial No. 312,719.

To all whom it may concern:

Be it known that we, FREDERICK C. WAGNER and FREDRICK G. KOCH, citizens of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Horizontally-Pivoted Windows, of which the following is a specification.

Our invention relates to improvements in horizontally-pivoted windows, and the primary object of the invention is to produce a generally improved mechanism of this class which will be exceedingly simple in construction, cheap of manufacture, efficient in use, and much better adapted to its intended purposes than any other device of the same class with which we are acquainted.

Another object of the invention is to provide means for horizontally pivoting the sash in the vertically-arranged sash-sustaining members, whereby the sash may be moved from a vertical to a horizontal position without causing a lateral movement of said sash-sustaining members and which will, when returned to its vertical or initial position, engage and interlock with the upper and lower ends of said sash-sustaining members to maintain the same in close proximity to the contiguous sides of the sash, and thereby preventing the ends of said sash-sustaining members from springing outwardly or laterally away from the adjacent sides of the sash, as is the case in many windows of this class now on the market.

Another object is to improve the construction of the vertically-arranged sash-sustaining members and the contiguous sides of the sash, whereby the same will be best adapted to cut off any draft or circulation of air between these parts.

With these ends in view the invention consists in the novel construction, arrangement, and combination of parts hereinafter described, illustrated in the accompanying drawings, and particularly pointed out in the appended claims.

Referring now to the drawings forming a part of this specification, Figure 1 is a perspective view of a horizontally-pivoted window embodying the invention, a portion of the side walls of the window-frame being broken away in order that its construction

may be more readily perceived; Fig. 2, a longitudinal sectional view of one of the sash-sustaining members and the contiguous or attached side of the sash-frame; Fig. 3, a side view of the spring-resisted sash-locking bar; Fig. 4, a detailed perspective view of one of the sash-sustaining members; Fig. 5, a cross-sectional view of one side of the improved sash-frame.

Similar numerals of reference designate like parts throughout all the figures of the drawings.

The sash 1 is horizontally pivoted and secured to a pair of vertically-arranged sash-sustaining members 2 by means of pivoted hanger-bolts 3. The sash-sustaining members 2 are slidably mounted in the ways of the sash-frame in the usual manner and connected to the sash-cord 4 by means of hooked members 5, engaged by said pivoted hanger-bolts 3.

The vertically-arranged sash-sustaining members 2 are preferably formed of channel-iron, as shown, and are provided on their inner sides adjacent to the sides of the sash with plates 6, said plates having their edges near the upper and lower ends thereof and at the outer and inner faces of the sash bent over and about to form diagonally-disposed hooked flanges 7. The plates 6 in the present instance are secured to the sash-sustaining members 2 by means of rivets 8 or may be secured in some other suitable and convenient manner, or, if desired, the hooked flanges 7 may be formed integral with the channel-irons forming the sash-sustaining members. The adjacent sides of the sash 1 are provided with plates 9, and the sides of the sash adjacent to said plates 9, near the upper and lower ends thereof, are cut away to provide recesses 10 for the reception of the ends of the hooked flanges 7 of the sash-sustaining members when the sash is returned to its vertical or initial position. It will also be observed that when the sash is returned to its vertical or initial position the edges of the plates 9 adjacent to the recesses 10 will take into the recess 11 of the hooked flanges 7, thus interlocking these parts together for the purpose of preventing the upper and lower ends of the sash-sustaining members from moving laterally or outwardly away from the sides of the same and also

bring the contiguous sides closer together to prevent the passage or circulation of air between these parts. The plates 9 of the sash and 6 of the sash-sustaining members are provided with openings 12 intermediate the ends thereof and slots or recesses 13, extending from said openings 12. When the sash is returned to its vertical or initial position, said openings 12 and slots or recesses 13 of the plates 9 and 6 register with each other, and in order to provide means for retaining the sash in any desired position to which it may be adjusted for ventilation and also for locking and retaining the sash in its vertical position in alinement with the sash-sustaining members a pair of spring-resisted locking-bars 14 are mounted in the sides of the sash in suitable openings registering with the openings 12 and slots or recesses 13 of the plates 9. The spring-resisted locking-bars are provided with central openings 15, through which the pivot hanger-bolts 3 pass, and near the ends thereof with guide pins or pintles 16, which take into suitable openings 17, formed in the sides of the sash, and said guide pins or pintles 16 are surrounded by coiled springs 18. The coiled springs 18 are adapted to press the locking-bars 14 outwardly at all times, so that they will snap into engagement with the slots 13 of the sash-sustaining members when the sash is moved to its vertical or initial position.

When it is desired to move the sash out of its horizontal position for the purpose of ventilation, the beveled outer sides of the locking-bars 14, near the ends thereof, will permit the sash to be moved on its pivots, causing the locking-bars to be depressed against the spring, and said spring-resisted locking-bars will press against the sides of the sash-sustaining members, so as to hold the sash in any position to which it may be adjusted. Projections or stops 19 are formed with the ends of said locking-bars and are adapted to engage and take under the plate 9 of the sides of the sash to limit the outward movement of the locking-bars by the springs.

From the foregoing description, taken in connection with the accompanying drawings, the operation and advantages of our invention will be readily understood.

Having thus described our invention, without having attempted to set forth all the forms in which it may be made or all the modes of its use, we declare that what we claim, and desire to secure by Letters Patent, is—

1. A horizontally-pivoted window, consisting of a sash, a sash-sustaining member pivotally secured thereto, a plate secured to said sash, openings and slots formed in said plate, sash, and sash-sustaining member, and a pivotally-mounted beveled locking-bar mounted in the opening and slot of said plate and sash and provided with guide-pins sur-

rounded with coiled springs, and stops to limit the outward movement of the same by said coiled springs.

2. A horizontally-pivoted window, consisting of channel-bar sash-sustaining members, plates secured thereto and provided with openings and slots, a sash pivotally secured to said members, plates secured to said sash, openings and slots formed in said plates and sash and registering with said openings and slots of said plates secured to said sash-sustaining members when the sash is in its vertical position, and spring-resisted beveled locking-bars mounted in said openings and slots of said plates and sash and provided at their ends with stops taking into engagement with the plate of said sash-sustaining members to limit the outward movements of the same when the sash is returned to its vertical position.

3. A horizontally-pivoted window, consisting of a channel-bar sash-sustaining member, a plate secured to the web of said member and provided with an opening and slot, a sash pivotally secured to said sash-sustaining member, a plate secured to said sash, registering openings and slots formed in said plates and sash, and a spring-resisted beveled locking-bar mounted in said registering openings and slots of said plates and sash and provided with stops at its ends to engage with said plate secured to said sash.

4. In a horizontally-pivoted window, the combination with a channel-bar sash-sustaining member, and a plate secured to the web thereof and provided with an opening and slot; of a sash pivotally secured to said sash-sustaining member, a plate secured to said sash and provided with an opening and slot adapted to register with said opening and slot of said plate of the sash-sustaining member, and a spring-resisted beveled locking-bar mounted in the opening and slot of said plate and provided at its ends with stops engaging with said sash-plate when the sash is brought in alinement with said sash-sustaining member.

5. In a horizontally-pivoted window, a channel-bar sash-sustaining member, a plate secured to the web thereof and provided with an opening and slot intermediate the ends thereof, diagonally-disposed hooked flanges formed with the sides of said plate near the upper and lower ends thereof, and a sash pivotally secured to said sash-sustaining member and provided with a locking-bar and plate, said locking-bar adapted to move into said opening and slot and said plate to have its edges engaged by said hooked flanges when the sash is in its closed position.

6. In a horizontally-pivoted window, the combination with a channel-bar sash-sustaining member, and a plate secured to the web thereof and provided with an opening and slot; of a sash provided with a slot hav-

ing its ends extending beyond the ends of said slot in said plate and having openings near its ends extending into the sash, a plate secured to the side of said sash and provided with a slot registering with said first-mentioned slot, a spring-resisted locking-bar mounted in said slot of said sash and provided with guide-pins taking into said openings near the ends thereof and carrying on its ends stops normally engaging said last-mentioned plate, and a pivot hanger-bolt taking through an opening formed intermediate the ends of said locking-bar and securing said sash to said sash-sustaining member.

7. In a horizontally-pivoted window, the combination with a sash provided with a slot opening or recess and having pin-openings near its ends extending into the side of the sash, a plate secured to the side of said sash and provided with a slot-opening of less length than said slot-opening of the sash, and a pivot hanger-bolt mounted intermediate the ends of said slot-openings; of a locking-bar mounted on said pivot hanger-bolt and provided with guide pins or pintles taking into said pin-openings of said sash and end stops normally engaging with said first-mentioned

plate, and coiled springs surrounding said guide pins or pintles.

8. In a horizontally-pivoted window, the combination with a channel-bar sash-sustaining member, and a plate secured to the web thereof and provided with an opening and slot and diagonally-disposed flanges; of a sash horizontally pivoted to said sash-sustaining member and provided with an opening and slot, a plate secured to the side of said sash and provided with an opening and slot adapted to register with the opening and slot of said plate secured to the web of said sash-sustaining member, and a beveled spring-resisted locking-bar mounted in the openings and slots of said plate and sash and adapted to take into the opening and slot of said plate secured to said sash-sustaining member when the sash is in its closed or initial position.

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

FREDERICK C. WAGNER.

FREDRICK G. KOCH.

Witnesses:

C. P. JOHNSON,

O. C. BILLMAN.