

No. 883,230.

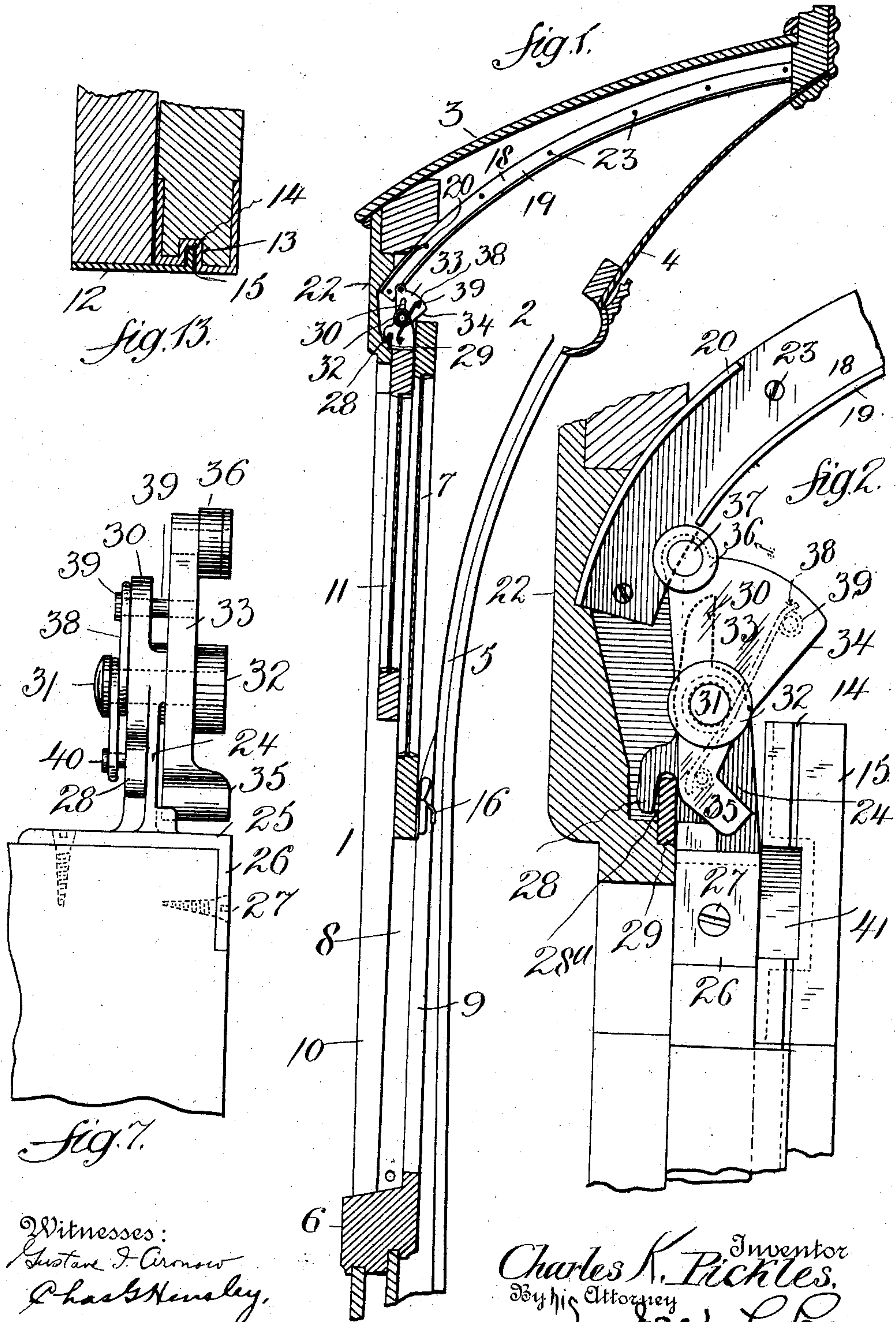
PATENTED MAR. 31, 1908.

C. K. PICKLES.

CAR.

APPLICATION FILED AUG. 9, 1907.

3 SHEETS—SHEET 1.



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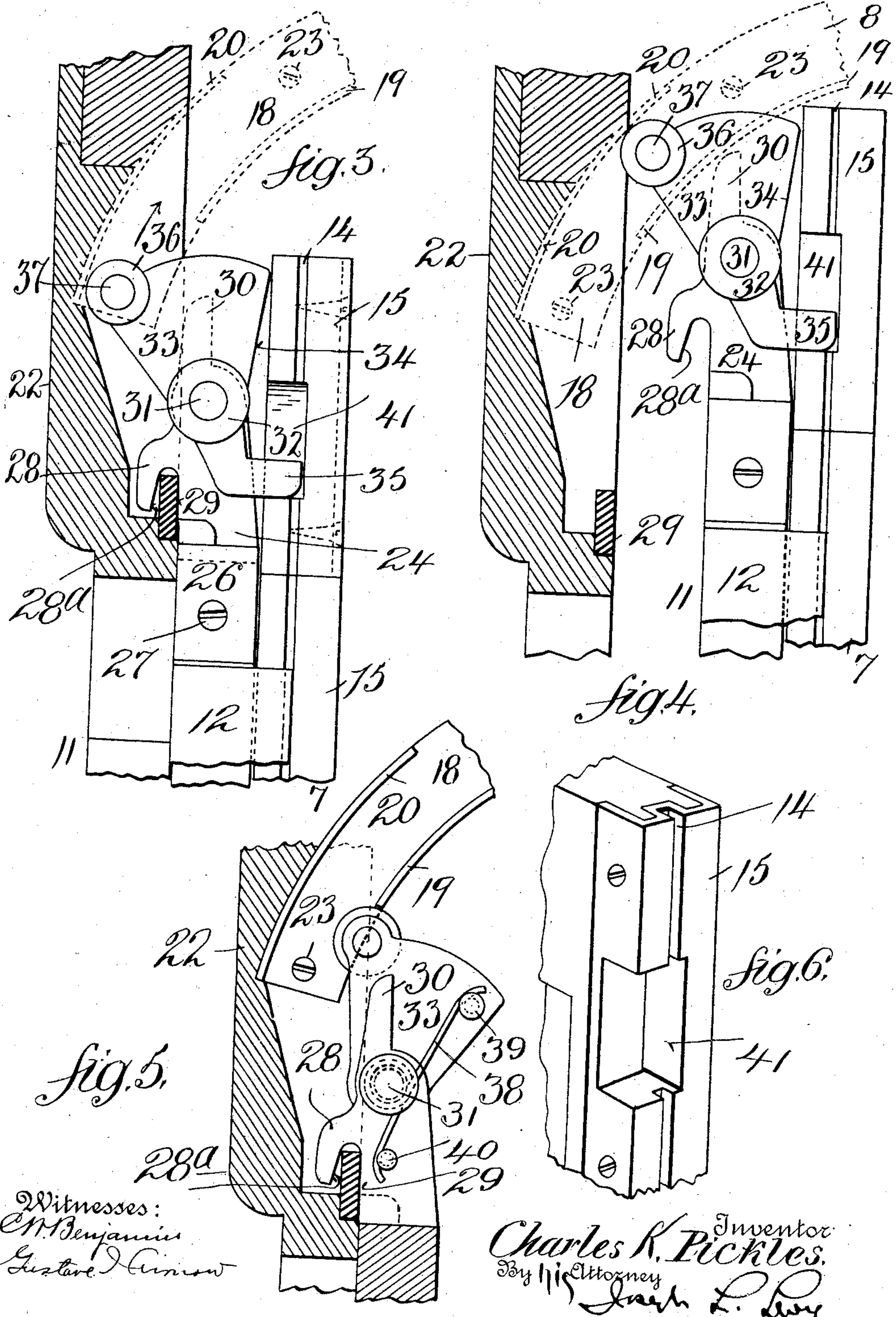
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3 SHEETS—SHEET 2.



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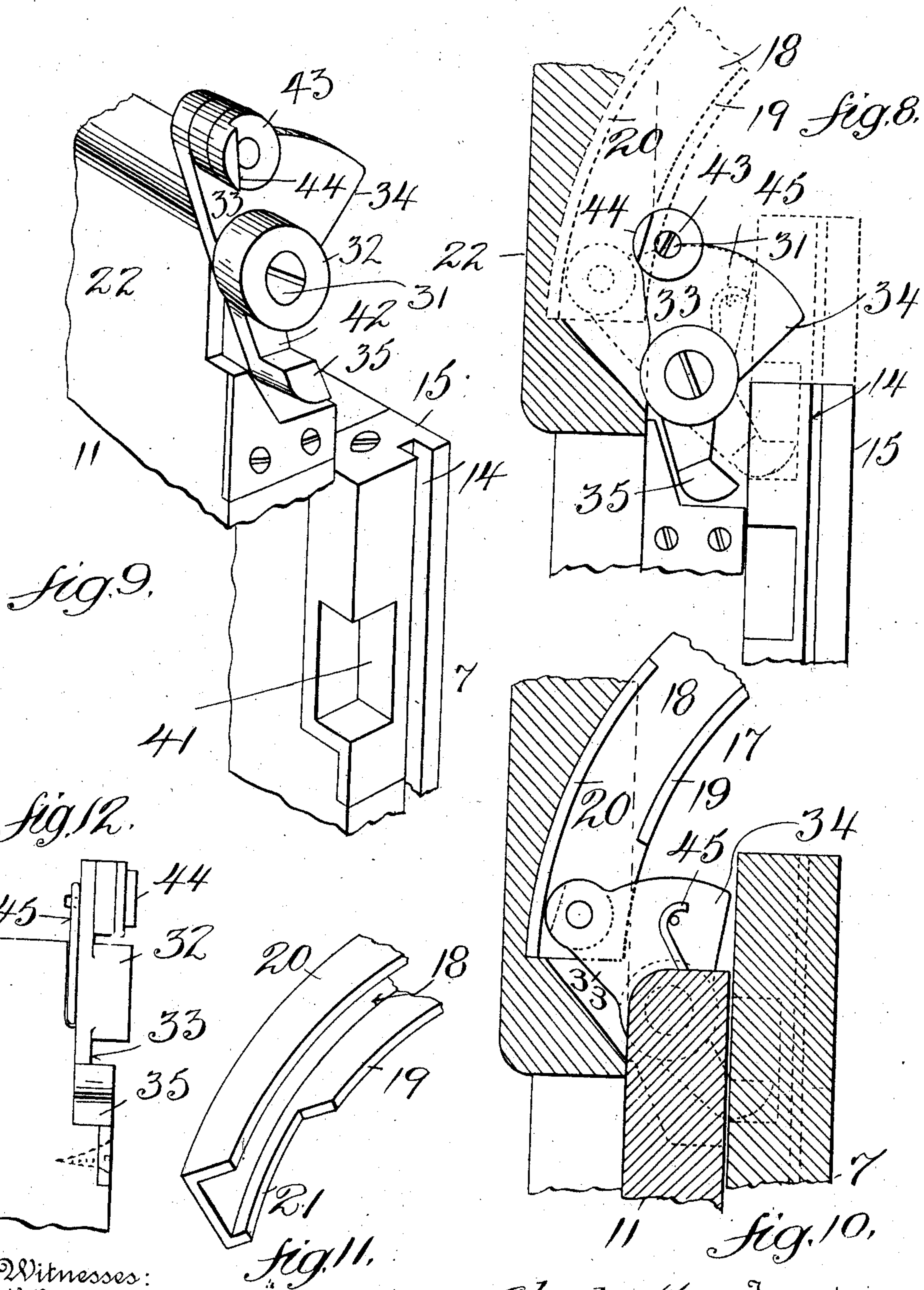
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3 SHEETS—SHEET 3.



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UNITED STATES PATENT OFFICE.

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CAR.

No. 883,230.

Specification of Letters Patent.

Patented March 31, 1908.

Application filed August 9, 1907. Serial No. 387,747.

To all whom it may concern:

Be it known that I, CHARLES K. PICKLES, a citizen of the United States, and a resident of Danville, in the county of Vermilion and State of Illinois, have invented certain new and useful Improvements in Cars, of which the following is a specification.

My improvements relate to cars which have roof pockets in which the sashes are adapted to be stored and more particularly to the means for guiding and interlocking the sashes in their movement to and from the roof pockets.

My improved device consists of simple and economic means for causing the lower sash to operate a trigger on the upper sash which will engage the lower sash and cause them to move upwardly together and such means are provided with a roller which guides and supports the sashes in their movement in the roof pocket.

In the drawings forming part of this application, Figure 1 is a transverse section of a portion of a car having my improvements, Fig. 2 is an enlarged view, partly in section, showing the trigger mechanism and the opposite stanchion, Fig. 3 is a similar view showing the guideway in dotted lines, and the trigger just as it engages the lower sash, Fig. 4 is a similar view showing the sashes as they are traveling up on the guide, Fig. 5 is an enlarged view, partly in section, with the parts at rest, before the lower sash is raised, Fig. 6 is a perspective view, of the upper end of the lower sash, Fig. 7 is a front elevation of the trigger, Fig. 8 is an enlarged section, showing a slightly modified form of trigger, Fig. 9 is a perspective view thereof, Fig. 10 is an enlarged sectional view showing the position of the trigger when the sashes are locked, Fig. 11 is a perspective view of the lower end of the guide rail, Fig. 12 is a front elevation of the modified trigger, and Fig. 13 is a cross section of a portion of the sashes showing the method of keeping the sashes together.

The car, so far as the present invention is concerned may be of any type having side posts or stanchions 1, and roof pockets 2, formed between the roof 3 and head lining 4 for the storage of the sashes. The usual curtain groove 5 may be provided in the stanchions, which follows the inner side.

The closure for the sides of the car above the belt rail 6 consists of a lower sash 7 which rests down on the belt rail, and which travels in a groove 8, formed between the inner guiding strip 9 and the outer, or weather strip 10, and an upper sash 11 which rests against the outer strip 10 and is guided at the top by my improved device.

I preferably provide means for causing the two sashes to engage along their length so that the means for suspending the upper sash will, because of such engagement, sustain the lower sash as well. The means for such engagement, which is shown in detail in Fig. 13 is not *per se* new in this application. The edge of the upper sash is provided with a metallic plate 12 extending laterally of the sash and having an inwardly extending flange 13 which engages in a groove 14 formed in a metal stile 15 on the edge of the lower sash. The flange 13 and grooved stile 15 extend throughout the length of the respective sashes. This engagement is continuous, that is, when the lower sash is in its lowest position the upper end is engaged with the flange of the upper sash so that when raised the lower sash will be guided by the flange on the upper. Finger lifts 16 with projecting pintles, engage holes in the stanchion so as to hold the sash in various positions between the stanchions, in the customary manner.

I provide means in the sash pockets for guiding the sashes and the preferred form in its various details consists of an angle iron 17 which is secured at one end to the letter board 22 and curved upwardly and inwardly, to the roof beam. Where the stanchion is made as here shown I prefer to secure the guide along its length to the stanchion by screws 23. A guide is secured on the faces of each stanchion so that there will be two for each set of sashes. These guides consist of a flat web 18, with a flange 19 extending at right angles thereto on the lower edge, which forms a track for the sash guide, as will appear hereafter. Commencing at the lower end of the guide is a second flange 20 on the upper edge which extends above the point where the under flange 19 is reduced to a smaller depth 21. It may extend much above that point, but as will be seen hereafter, it will be of no purpose to extend it beyond the point shown herein. As the guides

are made in pairs the flanges of the guides for each set of sashes will extend toward each other.

I have secured to the upper sash, a trigger which will engage the lower sash when it is raised, and hold the two sashes together during the time they are in the roof pocket, and which will also engage the guides and sustain the upper ends of the sashes. In the form shown in Figs. 1, 2, 3, 4, 5, and 7 this trigger mechanism consists of a plate 24 extending vertically above a base 25 which latter is secured on the top of the upper sash and its depending plate 26 is secured, flush, to the edge of the sash by suitable means such as screws 27. A depending hook 28 on the plate 24 engages a member of the car, which as here shown consists of a bar 29 set in the letter board and over which the hook 28 engages when the sash is in the position shown in Fig. 5, so that the hook prevents the upper sash from falling inwardly when in such position and may sustain the upper sash. The inner side 28^a of the hook is slanting so that as the weight of the sash draws down on it the hook will draw the sash tightly against the weather strip. The plate 24 also has an upwardly extending finger 30 which serves for a stop. The plate 24 has extending therethrough a pin 31 on which is journaled a roller 32, and between the roller 32 and plate 24 is journaled upon the pin 31, a plate 33 which forms the means for locking the sashes. The plate 33 has a slanting edge 34 which projects inwardly and into the path of the lower sash so that as the lower sash is raised its upper edge will rock the lever 33 on the pin 31 and force a hook 35 on the lower end of the lever into engagement with the lower sash. The upper part of this lever-plate 33 is provided with a roller 36 which is journaled thereto on a pin 37, and as this roller extends outward, it travels near the web 18 of the metal guide. A spring 38 (see Fig. 7) is secured on the pin 31 and has one end pressing against a pin 39 on the plate 33 and the other end against a pin 40 on the plate 24 so that the spring will tend to throw the upper end of the plate 33 inward and in the path of the lower sash. When the lever 33 is rocked by the lower sash the pin 39 will strike against the projection 30 and prevent the lever 33 from going farther than necessary.

The upper end of the lower sash is provided with a recess 41 which is preferably formed in the metallic plate 15 which forms the sash stile. The operation of this form of my invention is as follows: The lower sash rests on the belt rail and is guided by the strips 9 and 10. The upper sash is sustained by the engagement of the hook 28 with the rail 29. When it is desired to store the sashes in the roof pocket, the lower sash is raised by the finger holds, when the lower

sash will be guided by the tongue and groove connection along its edges with the upper sash, until the upper edge of the lower sash strikes against the slanting edge 34 of the lever 33. As the lower sash continues the lever 33 is rocked on the pin 31 until the hook 35 engages in the recess 41 of the lower sash when both sashes will be locked together for the remainder of their upward movement. When this is taking place, the roller 36 is moving inwardly from its locked position under the end of the flange 19 so as to be free to travel on the upper side of the latter and sustain the two sashes. If the roller 36 should move inwardly too far it will engage against and be guided by the flange 20. The roller 36 continues to guide the sashes until they reach their extreme position. The roller 32 remains on the under side of the flange 19 and prevents any friction between the hanger and guide. Upon the return of the sashes, the hook 28 engages on the rod 29 and the top sash stops. The lower sash then continues its movement alone, and the lever 33 is moved outward, at the top by the spring 38 ready for action again.

The modified form shown in Figs. 9 to 12 is better adapted for use where the upper sash is sustained by a stop at its lower end instead of as in the former construction by a hook 28. In this construction, the lower sash is the same as before. The lever 42 has the inclined edge 34 the same as before and the hook 35. The roller 32 serves the same purpose also. The roller 43 in this case is somewhat modified by having a projecting portion 44 which will engage against the shallow portion 21 of the guide flange and act as a stop to prevent further movement of the lever 42. The spring 45 serves to force the lever in the position shown in Fig. 8.

Having described my invention, what I claim is:

1. A car having stanchions and provided with a roof pocket, a plurality of sashes movable into said pocket, one of said sashes having a lever with edge adapted to be rubbed and extending into the path of the second sash and adapted to be rocked by the latter, means on the said lever adapted to engage the second sash upon the movement of the lever, a guide in the roof pocket, and means on the said lever adapted to be thrown into engagement with the guide upon the rocking of said lever, so as to guide the said sashes.

2. A car having stanchions and provided with a roof pocket, an upper and lower sash, movable into the roof pocket, a lever on the upper sash adapted to be rocked by the lower sash and having a hook which engages the lower sash when the said lever is rocked, and a hook carried near the top of said upper

sash adapted to engage a member of the car and support the upper sash in its closed position.

5 3. A car having stanchions, and a roof pocket, guides in said pocket, having a projecting flange, an upper and lower sash, a lever on the upper sash adapted to be rocked by the lower sash, a projecting portion on said lever adapted to be placed into engage-
10 ment with the lower sash when said lever is rocked and a roller on said lever adapted to engage the flange of said guide and guide the upper ends of the said sashes.

15 4. A car having stanchions and a roof pocket, sashes movable into the roof pocket, a guide in the roof pocket consisting of a plate having a plurality of laterally extending flanges, a lever on one of said sashes

adapted to be rocked by the second sash, and a roller on said lever adapted to move 20 between the flanges on said guide.

5. A car having stanchions and a roof pocket a sash guide in the roof pocket having a flange, partly cut away near its lower end, a lever on one of the sashes, adapted to be 25 rocked by the second sash, and a roller on the said lever, adapted to engage the flange of the guide and having a projection engaging with the reduced portion of said flange for preventing the lever from disengaging 30 from the said guide.

Signed this 3rd day of August, 1907.

CHARLES K. PICKLES.

Witnesses:

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