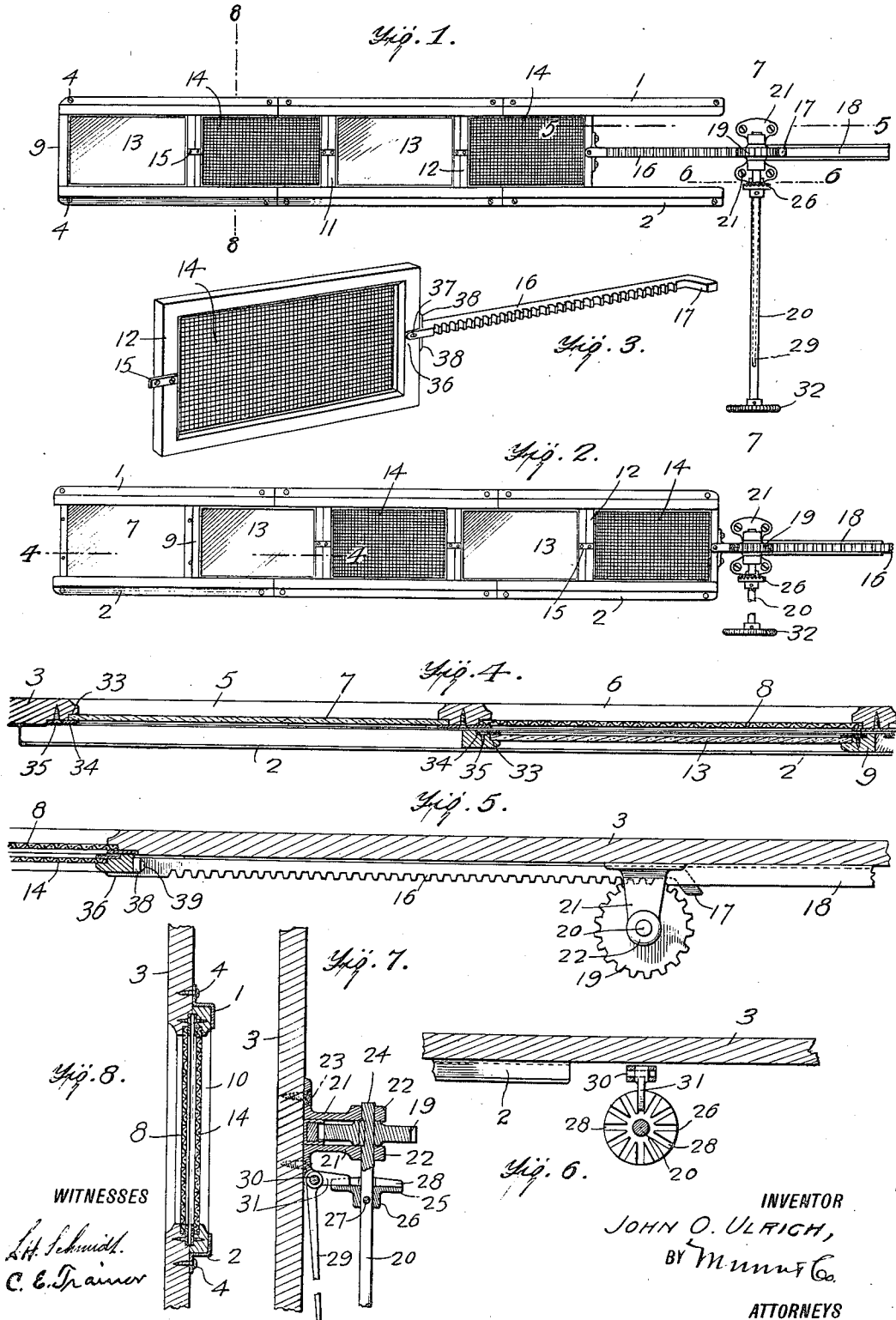


J. O. ULRICH.
LIGHTING AND VENTILATING APPARATUS.
APPLICATION FILED APR. 15, 1912.

1,064,573.

Patented June 10, 1913.



UNITED STATES PATENT OFFICE.

JOHN O. ULRICH, OF TAMAQUA, PENNSYLVANIA.

LIGHTING AND VENTILATING APPARATUS.

1,064,573.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOHN O. ULRICH, a citizen of the United States, and a resident of Tamaqua, in the county of Schuylkill and State of Pennsylvania, have invented certain Improvements in Lighting and Ventilating Apparatus, of which the following is a specification.

My invention is an improvement in lighting and ventilating apparatus, and has for its object the provision of a simple, inexpensive device of the character specified, by means of which light and air may be admitted.

In the drawings: Figure 1 is a front view of the improvement, with the parts in one position; Fig. 2 is a similar view with the parts in another position; Fig. 3 is a perspective view of one of the frames; Fig. 4 is a section on the line 4—4 of Fig. 2; and, Figs. 5, 6, 7 and 8 are sections on the lines 5—5, 6—6, 7—7, and 8—8, respectively of Fig. 1.

In the present embodiment of the invention, a guideway is provided, composed of spaced parallel strips or bars 1 and 2, each composed of two laterally offset connected portions, one of which is secured to the wall 3, by means of screws 4 and the other portion is spaced apart from the wall. The strips are arranged on each side of a series of alined window openings 5 and 6. Each opening 5 is provided with an imperforate sheet 7 of transparent material, as for instance glass, and each opening 6 is provided with a sheet 8 of perforate material, as for instance wire gauze. A series of connected frames 9—10—11 and 12 is arranged between the guideways, the said frames being rectangular, and arranged end to end, as shown, and corresponding in number to the number of openings 5—6. The alternate frames 9 and 11 are provided with an imperforate sheet 13 of glass, or like transparent material, while the intermediate frames 10 and 12 are provided with a sheet 14 of perforate material, as for instance gauze. The frames are connected at their ends, by means of straps 15, and all of the frames are freely slidable in the guideways.

A rack bar 16 is secured at one end to the outer end of frame 12, and the outer end of the bar is provided with a lateral lug 17. The said outer end is slidable in the channel or groove of a channel bar 18, secured to the wall, and the teeth of the bar are engaged

by a gear wheel or pinion 19. The pinion is secured on a shaft 20 journaled in bearings 22 in brackets 21, which are secured to the wall on opposite sides of the rack bar and guideway, by means of screws 23. The pinion is secured to the shaft by means of a key 24, Fig. 7, and a disk 25 is provided with a hub 26 fitting on the shaft and secured thereto by a pin 27. The disk is on the lower side of the bearing brackets 21, and is provided on the face adjacent to the said brackets, with a series of radial grooves or notches 28. A latch lever 29 is pivoted at 30 to the adjacent bracket 21 beneath shaft 20, and the said lever is provided with a latch 31, for engaging the grooves or notches 28, to hold the shaft 20 from rotation. The latch 31 is arranged at a somewhat greater angle than a right angle to the lever, so that the weight of the lever will hold the latch in engagement with the grooves. A hand-wheel 32 is secured to the lower end of shaft 20 for turning the shaft, to rotate the pinion 19.

It will be noted that the sheets 7 and 8, and 13 and 14 are held in place in rabbets 33 in the openings and in the frames, by means of straps 34, secured to the wall and to the frames by screws 35.

The rack bar 16 is provided at the opposite end from the lug 17 with a longitudinally extending lug 36, fitting on the outer face of the end of the frame 12, and secured thereto by a screw 37, and with lateral lugs 38, fitting against the end of the frame and secured thereto by screws 39.

In operation, the parts may occupy the position of Fig. 1, in which it will be noted that an imperforate sheet 13 is over each opening 5 and a perforate sheet 14 over each opening 6, or the position of Fig. 2, in which a sheet 14 is over each opening 6. That is the frames may be so arranged that the perforate sheets 14 register with the perforate sheets 8, and the imperforate sheets 13 register with the imperforate sheets 7, or the opposite. When the sheets 13 register with sheets 7, light and air is free to pass through the registering perforate sheets 8 and 14, while when the sheets 13 register with sheets 8, the openings 6 are closed to prevent the circulation of air but permit the entrance of light. The frames may be moved to the desired position, merely by releasing the latch 31, by means of the latch lever and turning shaft 20 in the proper

direction, by means of wheel 32. When the frames are in the desired position the latch lever is released, and of its own weight causes the latch to engage the grooves 28.
5 The lug 17 on each bar 16 limits the movement of the rack bar inwardly, so that there is no danger of the bar becoming disengaged from the wheel.

The device may be arranged in any desired position and is operated from the floor. A perfect circulation of light and air may be obtained, by bringing the perforate sheets of the frames into register with the perforate sheets of the openings.

15 I claim:

1. A wall having a series of succeeding alternately arranged screens and windows and a slide composed of connected successively and alternately arranged screens and windows, corresponding in relation and dimensions to those of the wall, whereby the slide may be adjusted to register its screens with

those of the wall or with the windows of the wall, the windows of the slide in the latter adjustment registering with the screens of the wall, means for moving the slide, and means for locking the slide in adjusted position.

2. A wall having a series of succeeding alternately arranged screens and windows and a slide composed of connected successively and alternately arranged screens and windows corresponding in relation and dimension to those of the wall, whereby the slide may be adjusted to register its screens with those of the wall or with the windows of the wall, the windows of the slide in the latter adjustment registering with the screens of the wall.

JOHN O. ULRICH.

Witnesses:

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