

(No Model.)

H. P. EGEDAL.
COMBINED BLIND AND VENTILATOR.

No. 514,918.

Patented Feb. 20, 1894.

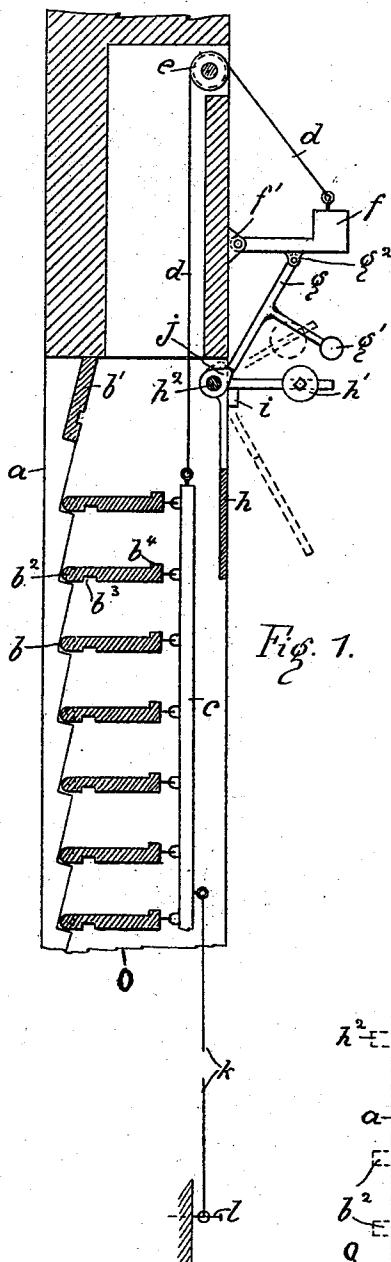


Fig. 1.

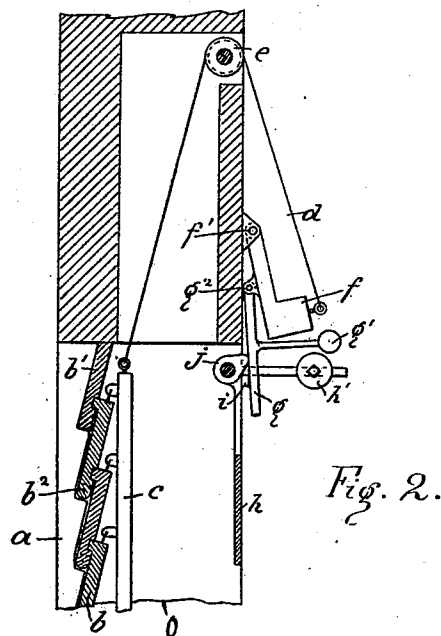


Fig. 2.

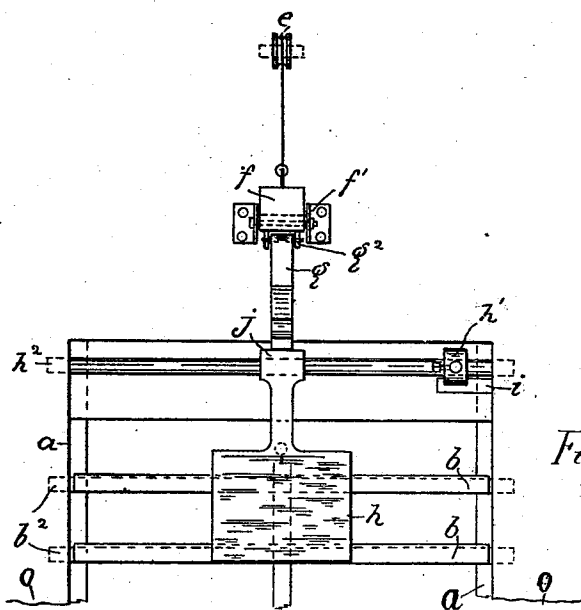


Fig. 3.

Witnesses
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UNITED STATES PATENT OFFICE.

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COMBINED BLIND AND VENTILATOR.

SPECIFICATION forming part of Letters Patent No. 514,918, dated February 20, 1894.

Application filed May 28, 1892. Serial No. 434,718. (No model.)

To all whom it may concern:

Be it known that I, HANS P. EGEDAL, a citizen of the United States, residing at Thor, in the county of Humboldt and State of Iowa, have invented certain new and useful Improvements in a Combined Blind and Ventilator, which are fully set forth in the following specification, reference being had to the accompanying drawings, forming a part hereof, and in which—

Figure 1 shows a transverse vertical section of my improved combined blind and ventilator, with its slats open. Fig. 2 shows a mechanism about like Fig. 1 with its slats in a closed condition. Fig. 3 shows the upper end of my said device in the open condition as seen from the interior.

Like letters refer to like parts.

The object of my invention is to produce a ventilating slat for shutters, but more particularly for cupolas of large buildings, belfries, towers, elevators, barns, stables, &c., where large currents of air are usually wanted and which shall be self closing under established conditions and regulably adjustable, also more securely proof against the entrance of snow or wind when closed than those now in use, and, to attain said desirable ends I construct my said new and improved device in substantially the following manner, namely: Near one edge of a casing *o* are holes in which turn the bearings *b*² of slats *b*. The journals or bearings of said slats are at the lower edge of the ends of the slats, and on the outside of said slats, against the inner side of the casing *o* is attached a notched strip *a* which covers the joints at the ends of the slats and fits snugly against them when they are closed. Above the journals is a groove *b*³ from end to end of each slat, and at the upper edge and opposite and outer side of each slat is a bead *b*⁴ from end to end of each slat which fits into said channel *b*³ of the next slat above it. The outer, or free longitudinal edges of said slats are wired to a rod *c* in the usual manner and at the upper end of the casing *o* is a fixed slat *b*¹ with a channel to receive the bead *b*⁴, of the slat below it. To said rod *c* is attached a cord *d* which passes up and over a pulley *e* thence down to a weight *f* having an arm the outer end of which is hinged at *f*¹, to some

suitable support, said arm being long enough to permit the required motion to the slats. To said arm, or weight is attached a brace, hinged at *g*², provided with a weight *g*¹ at the end of a rigid arm projecting at right angles from said brace, as shown. The lower end of said brace *g* rests on the end of a cam-like spur *j* on the shaft *h*² and to said shaft *h*² is attached a rigid and adjustably weighted lever projecting horizontally, when in its lowest position, where it rests on some suitable support or stop, as *i*, and, projecting vertically downward from said shaft is a vane *h* in a plane parallel to the plane of said casing *o*, as shown. To said rod *c* is also attached a cord *k* which descends to a point in convenient reach to further manipulate said slats.

The operation of my said device is substantially as follows, namely: When the slats are to be opened the cord *k* is pulled down, or when it is desired to fasten the slats permanently the lower end of said cord is fastened to a pin *l*. When, however, it is desired to allow the slats to close automatically at any desired force of wind, the weight *h*¹ is adjusted on its lever to yield at that point, then the vane *h* moves inward, as shown by the broken lines in Fig. 1. This motion turns the shaft with its cam or spur *j* so as to release from it the brace *g* which then falls into the position shown in Fig. 2 and thus causes the slats to close as there shown. When the force of the wind has decreased below the designated force the cam *j* will again stand as now shown, ready to receive the brace *g*. All that is therefore required is to pull the cord *k* and thus open the slats and raise the weight *f*, each to its full extent, this will cause the end of the brace *g* to move into its place on the cam *j*. If said slats are to be only partly open the cord *k* is pulled down and fastened at the desired point, thus either moving the closed slats to such position or by such fastening so securing the slats from fully closing after the force of the wind has risen so as to actuate the mechanism adjusted to any desired force and thus trip the brace *g* from its support.

What I claim is—

1. The combination with connected and journaled slats, of an oscillating weight connected to said slats and to a hinged brace, an

automatically adjusting vane and tripping device for said brace, substantially as specified.

2. The combination with adjustable and
5 connected slats journaled at one end of their end edges and provided on one side and near said journals with a longitudinal groove and on the opposite side and outer edge with a longitudinal bead to enter the groove of the
10 slat above it, of a casing provided with a notched piece at the ends of said slats to fit against them when closed, substantially as specified.

3. The combination with connected slats turnable on an axis, of a cord and fastening 15 mechanism therefor operating said slats in one direction and a second cord attached at one end to said slats and at its other end to a hinged weight connected to a hinged brace a weighted vane and stop thereon for said 20 brace to operate substantially as specified.

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Witnesses:

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