

Sept. 9, 1924.

1,507,708

A. C. OSBORN

AUTOMATIC DOOR

Filed March 15, 1922

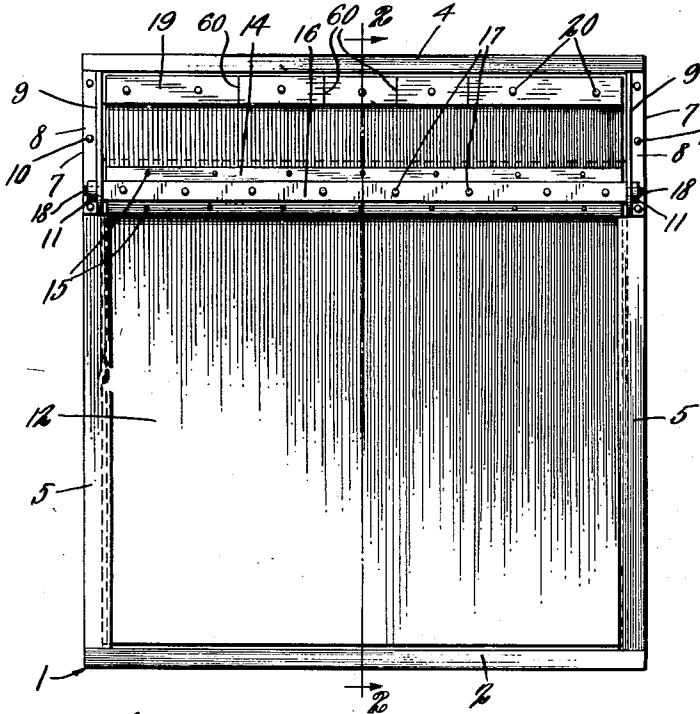


Fig. 1.

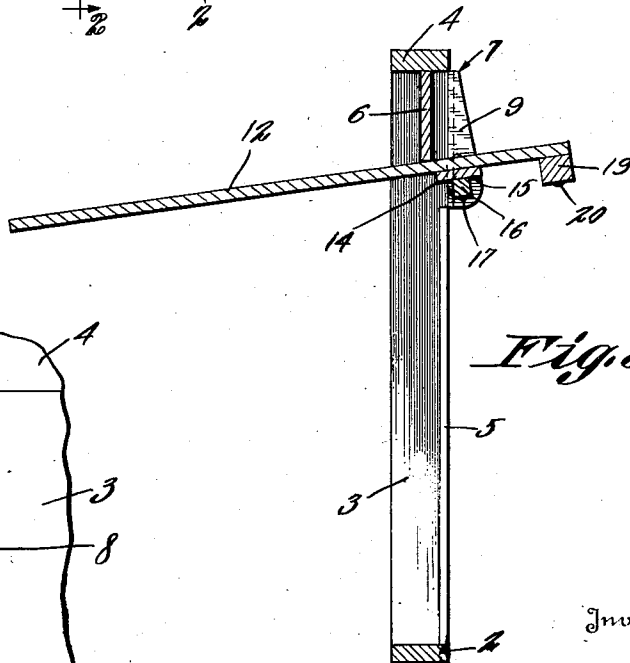
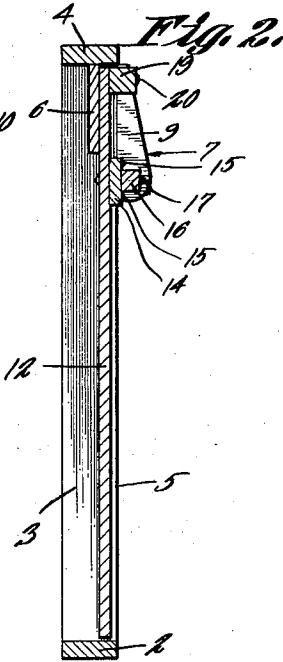


Fig. 3.

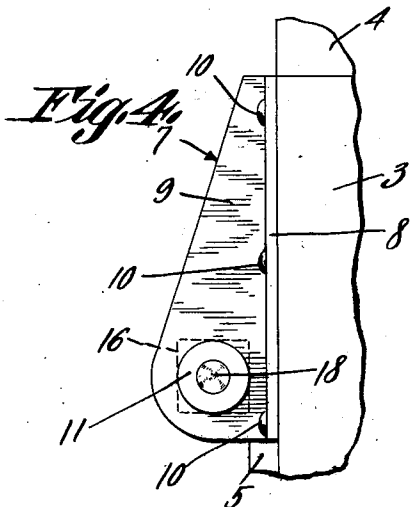


Fig. 4.

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UNITED STATES PATENT OFFICE.

ALEXANDER C. OSBORN, OF CLARKSBURG, WEST VIRGINIA.

AUTOMATIC DOOR.

Application filed March 15, 1922. Serial No. 543,955.

To all whom it may concern:

Be it known that I, ALEXANDER C. OSBORN, a citizen of the United States, residing at Clarksburg, in the county of Harrison and State of West Virginia, have invented a new and useful Automatic Door, of which the following is a specification.

This invention aims to provide novel means for mounting a door for swinging movement on a horizontal axis, the construction being such that when the door is open, it will stand in an inclined position and serve as an awning for the doorway.

It is within the province of the disclosure to improve generally and to enhance the utility of devices of that type to which the invention appertains.

In the accompanying drawings:—

Figure 1 shows in elevation, a device constructed in accordance with the invention; Figure 2 is a section on the line 2—2 of Figure 1; Figure 3 is a similar section, the door being in open position; and Figure 4 is an elevation showing one of the brackets and attendant parts.

In carrying out the invention there is provided a frame, denoted generally by the numeral 1, the frame including a sill 2, stiles 3 and a lintel 4. Lower stop strips 5 are mounted on the rear edges of the stiles 3 and extend upwardly from the sill 2. An upper stop plate 6 extends between the stiles 3 and projects downwardly from the lintel 4.

Brackets 7 are mounted on the stiles 3, each bracket including flanges 8 and 9 disposed at right angles, the flanges 8 being connected to the stiles 3 by securing elements 10. The flanges 9 are supplied with outwardly extended bearings 11.

A barrier 12 is disposed within the frame 1 and a transverse cleat 14 is secured at 15 to the barrier. A shaft 16 extends longitudinally of the cleat 14 and transversely of the barrier 12 and is attached to the cleat by securing members 17. The shaft 16 is provided at its ends with journals 18 mounted to rock in the bearings 11. A weight 19 extends transversely of the barrier 12 and is located at the top thereof, the weight being held on the barrier by securing elements 20.

When the barrier 12 is in closed position, as shown in Figure 2, the upper end of the barrier rests against the upper stop plate, the lateral edges of the barrier, below the shaft 16, resting against the lower stop

strips 5. The cleat 14 sets the shaft 16 forwardly to such an extent that the center of mass of the weight 19 is slightly to the rear of the axis of the journals 18, and, consequently, when the barrier is in the closed position shown in Figure 2, the barrier does not tend to swing to an open position, responsive to the weight 19. The barrier 12, however, may be swung upwardly into the open position shown in Figure 3 until the barrier comes in contact with the stop plate 6, the weight 19 serving to hold the barrier in the position of Figure 3, under which circumstances the barrier will serve as an awning or canopy, the barrier being downwardly inclined to a slight extent, so as to shed rain.

The weight 19 preferably is made in sections, as shown at 60, to render the weight easier to handle during the building of the device.

Having thus described the invention, what is claimed is:—

In a device of the class described, a substantially vertical frame including stiles, a sill and a lintel, a stop plate projecting downwardly from the lintel and located between the stiles, brackets on the forward edges of the stiles and projecting forwardly therefrom, means for securing the brackets to the forward edges of the stiles, a shaft mounted at its ends to rock in the brackets, a barrier located between the shaft and the stop plate and abutting at its upper end against the stop plate, a weight secured to the barrier and located above the shaft, a cleat interposed between the shaft and the barrier, and means for securing the shaft and the cleat to the barrier, the cleat constituting means for so positioning the barrier with respect to the shaft that the weight will tend to hold the upper end of the barrier in abutment with the stop plate when the barrier is closed, the weight constituting means for holding the barrier in an open position, and the stop plate constituting a stop for the barrier, when the barrier is in open position.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

ALEXANDER C. OSBORN.

Witnesses:

IRA H. FREESE,
G. S. FRUM.