(No Model.)

# A. W. BOYTE & W. B. HOUSTON.

## SASH RAISER.

No. 589,691. Patented Sept. 7, 1897.

Fig. 1.

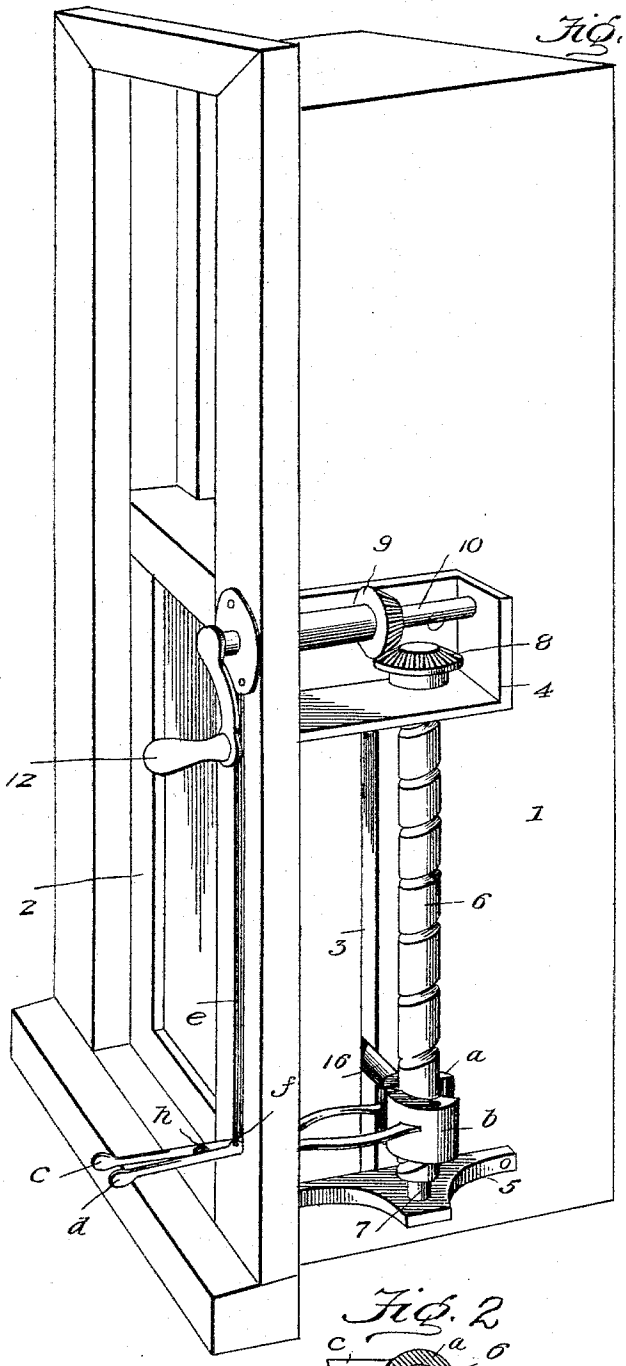
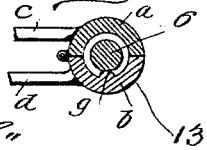



Fig. 2.




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# UNITED STATES PATENT OFFICE.

ALBERT W. BOYTE AND WALTER B. HOUSTON, OF MONROE, NORTH CAROLINA.

## SASH-RAISER.

SPECIFICATION forming part of Letters Patent No. 589,691, dated September 7, 1897.

Application filed February 10, 1897. Serial No. 622,831. (No model.)

*To all whom it may concern:*

Be it known that we, ALBERT W. BOYTE and WALTER B. HOUSTON, citizens of the United States, residing at Monroe, in the county of Union and State of North Carolina, have invented certain new and useful Improvements in Sash-Raisers; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

Our invention relates to a sash-raiser.

The object of the invention is to provide a device which shall be simple of construction, durable in use, and comparatively inexpensive of production, and by means of which binding sashes may be easily raised and lowered and retained in their adjusted positions, thereby dispensing with sash cords and weights, as well as sash-fasteners, for when lowered it is impossible for the sash to be raised from without.

A further object is to provide means by which the operative parts of the sash-raiser may be disengaged or ungeared, so that should the sash not bind it may be raised by hand in the usual manner, thus saving considerable time and labor.

With these objects in view the invention consists of certain features of construction and combinations of parts which will be hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 is a perspective view of a window-frame, illustrating the application of my invention; and Fig. 2 is a cross-sectional view through the divided or hinged traveling nut and the screw-shaft.

In the drawings, 1 denotes the window-frame, and 2 the window-sash, having the usual sliding movement therein. One side of the frame is provided with a longitudinal slot 3, and secured to the frame at the upper end of the slot is a bearing-bracket 4 and at the lower end of the slot a bearing-bracket 5. A screw-shaft 6 has its lower reduced end 7 stepped in the bracket 5, while its upper end is journaled in the bracket 4 and is provided with a gear 8, which is in mesh with a similar gear 9, fixed to a transverse shaft 10, journaled in the end of the brackets 4 and in one of the stiles of the window-frame. The inner end of the shaft 10 is provided with an operating key or crank 12.

13 denotes a nut keyed to the screw-shaft 6, and 16 denotes an arm integral with the nut and projecting through the slot 3 and secured to the window-sash.

By operating the crank it is evident that the screw-shaft will be rotated and that such rotation will cause the nut to be moved up or down, according to the direction of rotation of the crank. This will cause the sash to be moved vertically to open or close the window, and it is obvious that in an open or closed position the sash cannot be moved except by working the operating-crank.

Should the window-sash not bind, it is preferred to raise it by hand in the usual manner and thus save the time necessary to raise it by the screw-shaft. To this end we have provided a construction by means of which the nut may be thrown out of engagement with the screw-shaft, so that the sash may be raised or lowered, and which will automatically lock the sash in its adjusted position. To accomplish this, we make the nut of the sections *a b*, which are hinged together and are provided with two fingers *c d*, which project through a slot *e* in the window-frame and are hinged together, as shown at *f*. The part *a* of the nut, owing to its connection with the sash by the arm 16, has no swinging movement; but the part *b*, which has the feather or spline *g*, adapted to the groove of the shaft, has a swinging movement, so that when the fingers *c* and *d* are grasped and the latter pressed toward the former the section *b* of the nut, with its spline, will be thrown from engagement with the screw-shaft, thus allowing the sash to be raised or lowered at will in the usual manner.

A spring *h* is arranged between the outer ends of the fingers *c d* and exerts its energy to close the section *b* of the nut about the screw-shaft, so that when pressure is removed from the fingers the sash will be automatically locked in the adjusted position. Should the sash bind, it may be raised by turning the crank, as hereinbefore described.

Having thus described our invention, what we claim, and desire to secure by Letters Patent, is—

In a sash-raiser, the combination with a window-frame and a sliding sash, of a rotary screw-shaft, a nut mounted on said shaft and consisting of two hinged parts, one of which has a swing movement and a key or feather to engage the groove of said shaft, means for rotating said shaft, means for throwing the swinging section of the nut from engaging with the shaft, and means for automatically throwing said section into engagement with the shaft to hold the sash in its adjusted position, substantially as and for the purpose set forth.

In testimony whereof we hereunto affix our signatures in presence of two witnesses.

ALBERT W. BOYTE.
WALTER B. HOUSTON.

Witnesses:
S. S. WOLFE,
GEO. E. FLOW.