No. 610,020. Patented Aug. 30, 1898.

C. BERGERON.

AWNING.

(Application filed Jan. 29, 1896. Renewed Feb. 9, 1898.)

(No Model.) 2 Sheets—Sheet 1.

Fig 1.

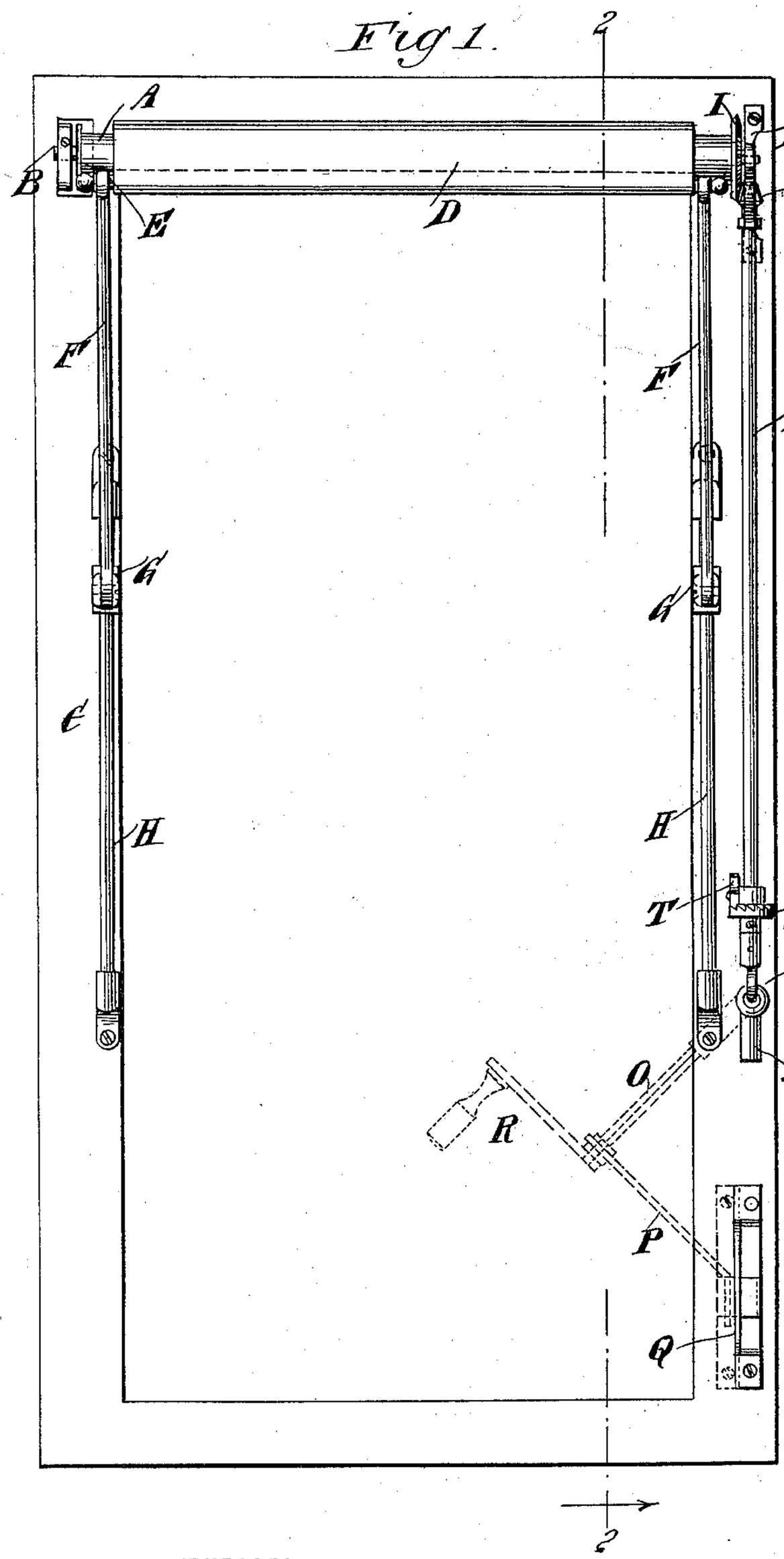
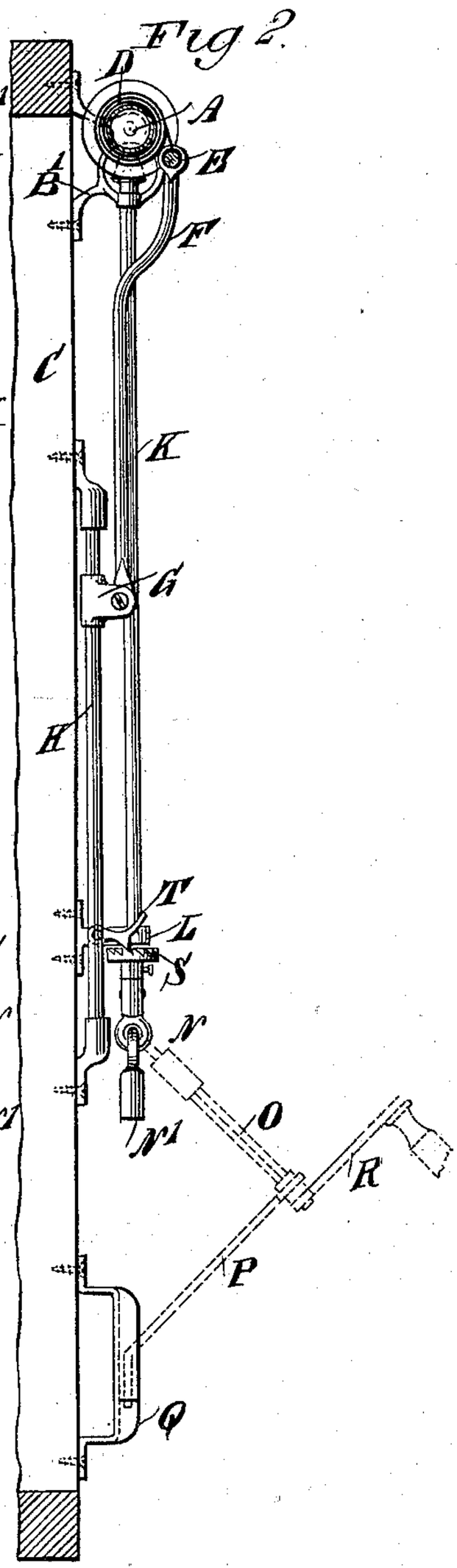


Fig 2.



WITNESSES:

Paul Johnson

Rev. J. Boutelle

INVENTOR

C. Bergeron.

BY Munn & Co

ATTORNEYS.

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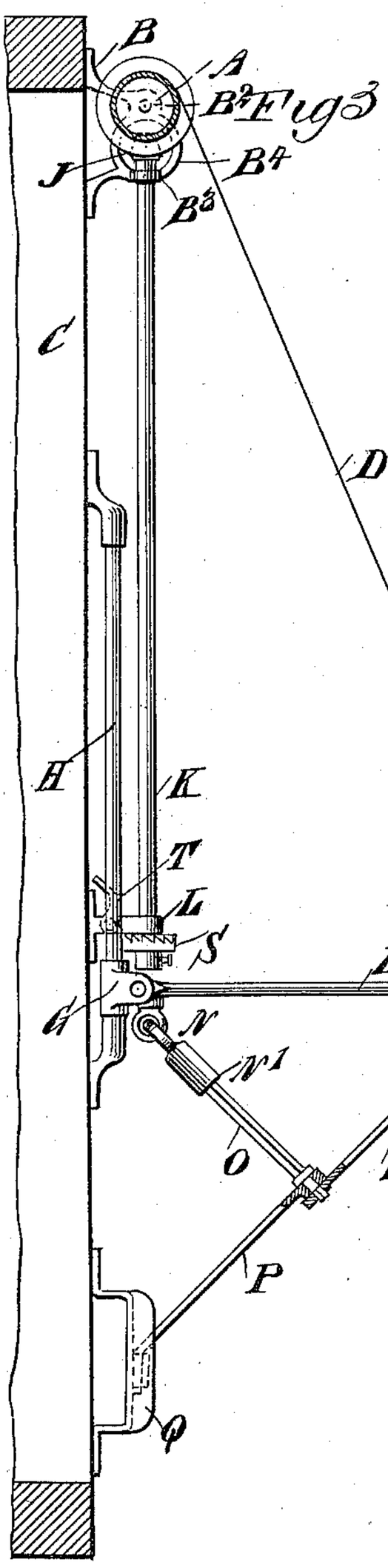

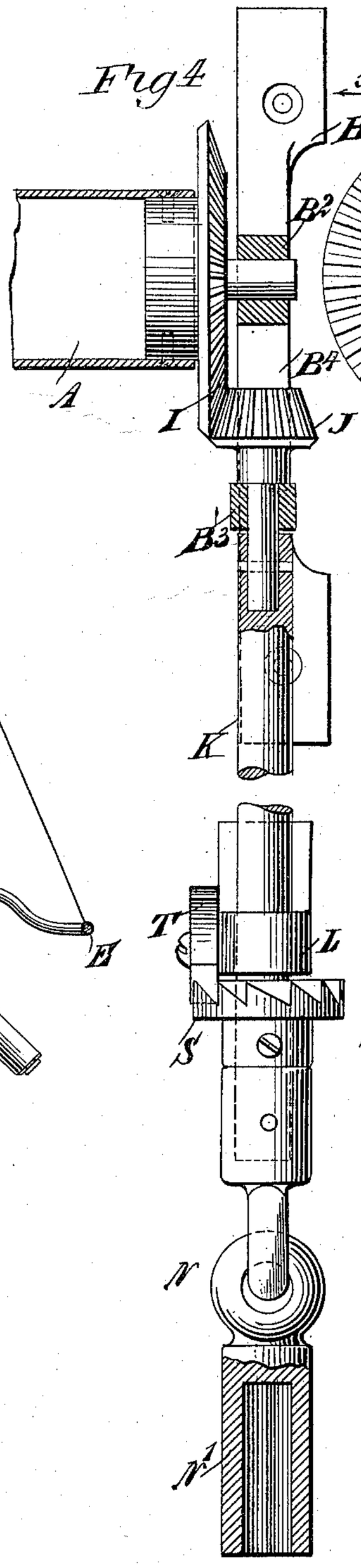

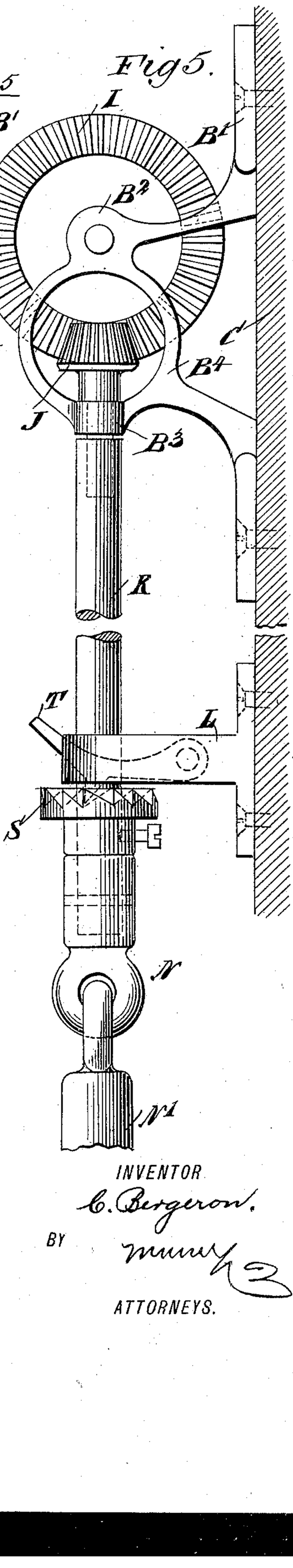

WITNESSES:

Paul Jones

Theo. G. Hoover, Jr.

INVENTOR

C. Bergeron.

BY Munn & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE.

CÉLESTIN BERGERON, OF NEW YORK, N. Y.

AWNING.

SPECIFICATION forming part of Letters Patent No. 610,020, dated August 30, 1898.

Application filed January 29, 1896. Renewed February 9, 1898. Serial No. 669,711. (No model.)

To all whom it may concern:

Be it known that I, CÉLESTIN BERGERON, of New York city, in the county and State of New York, have invented a new and Improved Awning, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved awning designed for use on windows and doors of stores and other buildings and arranged to permit the operator to conveniently, easily, and quickly raise or lower the awning.

The invention consists principally of a driving-shaft geared at its upper end to the awning-roller and provided at its lower end with a universal joint for connection with an operating crank-arm.

The invention also consists of certain parts and details and combinations of the same, as will be fully described hereinafter, and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of the improvement as applied. Fig. 2 is a transverse section of the same on the line 2 2 of Fig. 1. Fig. 3 is a like view of the same with the parts in a different position. Fig. 4 is an enlarged front elevation of the driving-shaft and connections with parts in section, and Fig. 5 is a side elevation of the same.

The improved awning is provided with a roller A, journaled at its ends in brackets B B′, attached to the door or window casing C, near the upper end thereof, as is plainly indicated in Figs. 1, 2, and 3.

On the roller A is adapted to wind or unwind the canvas or shade D, secured at its free end to a longitudinally-extending bar E, attached at its ends in the free ends of arms F, pivotally connected with slides G, fitted to move vertically on guide-rods H, secured to the sides of the casing C.

On the end of the roller A, next to the bearing B′, is secured a beveled gear-wheel I, in mesh with a pinion J, attached to the upper end of a vertically-disposed driving-shaft K, journaled at its upper end, as seen at B^3, in the bracket B′ and at its lower end in a bearing L, likewise attached to one side of the casing C.

The lower end of the driving-shaft K is provided with a universal joint N, formed with a socket N′, adapted to be engaged in its square bore by the end of a square crank-arm O, mounted to turn in an arm P, adapted to engage a socket in a bracket Q, attached to the side of the casing C. The crank-shaft O is provided with a suitable crank-arm R, adapted to be taken hold of by the operator, so as to turn said shaft O to rotate the driving-shaft K by means of the universal joint N.

By reference to the drawings it will be seen that the arm P extends upwardly in an inclined direction, so that the shaft O, extending at right angles to the arm P, extends inwardly and upwardly to engage with its free end the socket N′ of the universal joint N, and consequently the shaft K is driven from the shaft O, while the two shafts stand at angles to one another. The socket in the bracket Q may be arranged at one side or on the front (see Figs. 1 and 3) to permit of driving the shaft K from the shaft O either from the front of the casing or within the casing, as will be readily understood by reference to said figures. The rotary motion imparted to the shaft K from the crank-arm R and shaft O, as previously described, is transmitted by the pinion J to the gear-wheel I, so that the roller A is turned, and consequently the canvas D is either wound up or unwound on said roller, according to the direction in which said crank-arm is turned.

When the canvas D unwinds, then the arms F and slides G move downward until the slides G are in a lowermost position, and upon a further unwinding of the canvas the arms F will swing outwardly into the position shown in Fig. 3. The awning is then lowered, and when it is desired to raise the awning the operator turns the crank-arm R in the opposite direction to wind up the canvas D, so that the arms F first swing upwardly and inwardly until they assume a vertical position, and upon a further winding up of

the canvas said arms and slides G are drawn upward into an uppermost position, as indicated in Figs. 1 and 2.

When it is desired to lock the shaft K in position when the canvas is wound up completely or partly unwound, I provide a ratchet-wheel S, secured on the lower end of the shaft K next to the universal joint N, and said ratchet-wheel S is adapted to be engaged by a pawl T, fulcrumed on the bearing L. The teeth of the ratchet-wheel S stand in such a direction that when the pawl T is down the shaft K is locked against rotation to unwind the canvas D; but said shaft K can be turned so as to wind up the canvas in case the latter is in a lowermost or partially-extended position. When the canvas is completely wound up on the roller A and it is desired to unwind the said canvas, the operator first throws the pawl T out of engagement with the ratchet-wheel S, and then after inserting the arm P in the bracket Q and engaging the shaft O with the socket N′ he turns the crank-arm R so as to turn the shaft K, as previously explained.

It will be seen that by the arrangement described the arm P, with the crank-arm and shaft O, can be readily removed and kept in the store or other building until it is desired to let the awning down or to wind the same up, so that no unauthorized persons can tamper with the awning. When the operator, however, desires to raise or lower the awning, then he engages the free end of the shaft with the socket N′ and inserts the lower bent end of the arm P into the socket on the bracket Q to permit of turning the crank-arm to operate the shaft K, as previously explained.

By reference to Fig. 5 it will be seen that the bracket B′ is arranged with two bearings B^2 B^3, located one above the other, and of which the bearing B^2 is for the end of the roller A and the other bearing B^3 is for the upper end of the vertical shaft K. The two bearings B^2 B^3 are connected with each other by a ring B^4, in the opening of which extends the pinion J. It is understood that the several parts of the bracket B′ are integral, and by its use two separate brackets, one for the roller A and one for the shaft K, are not necessary.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. An awning, provided with a driving-shaft connected at its upper end with the awning-roller, and provided at its lower end with a universal joint for connection with an operating crank-arm, substantially as shown and described.

2. In an awning, the combination with an awning-roller carrying the canvas, of a driving-shaft geared with said roller and provided at its lower end with a universal joint, and an operating crank-arm adapted to engage a member of said universal joint, to permit of rotating said driving-shaft by said crank-arm, substantially as shown and described.

3. In an awning, the combination with an awning-roller carrying the canvas, of a driving-shaft geared with said roller and provided at its lower end with a universal joint, an operating crank-arm adapted to engage a member of said universal joint, to permit of rotating said driving-shaft by said crank-arm, and an arm adapted to be set at an angle to the door or window, and in which said crank-arm is journaled, substantially as shown and described.

4. In an awning, the combination of a roller, a driving-shaft operatively connected thereto and formed in sections connected by a universal joint, a crank-shaft having one end operatively connected to one section of the driving-shaft, and an arm mounted to swing, said crank-shaft being journaled in said arm, substantially as set forth.

5. In an awning, the combination of a window-casing or the like, a roller mounted to turn on the casing, a driving-shaft formed in sections connected by a universal joint, said driving-shaft being operatively connected with said roller, a bracket secured to the window-casing, an arm swiveled on the bracket and arranged to stand in an inclined position, and a crank-shaft journaled in said arm and operatively connected to one section of the driving-shaft, substantially as set forth.

CÉLESTIN BERGERON.

Witnesses:
EDWARD CHAMELSBURY,
JNO. M. RITTER.