

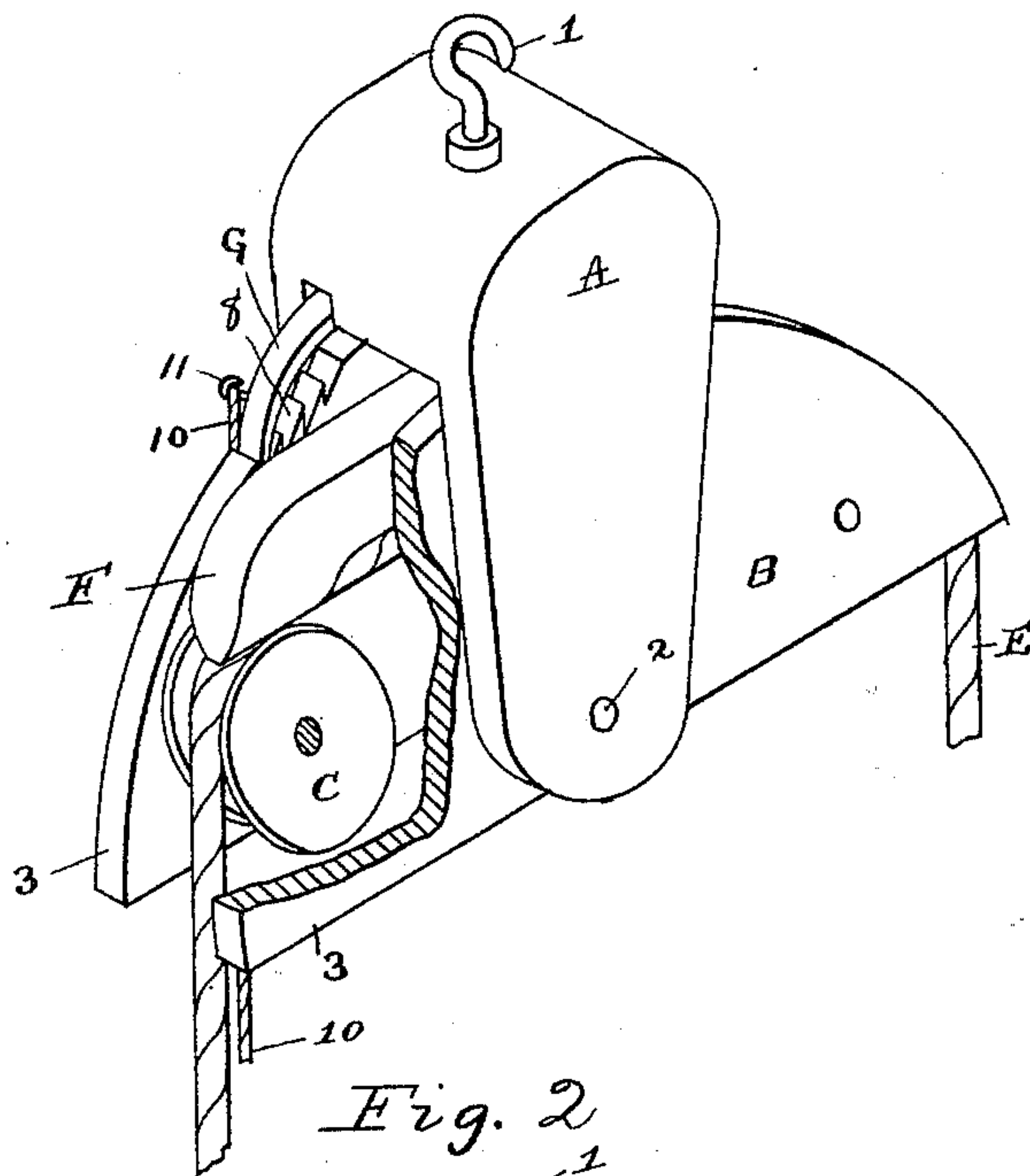
(No Model.)

B. R. SOCKMAN.  
SELF LOCKING PULLEY.

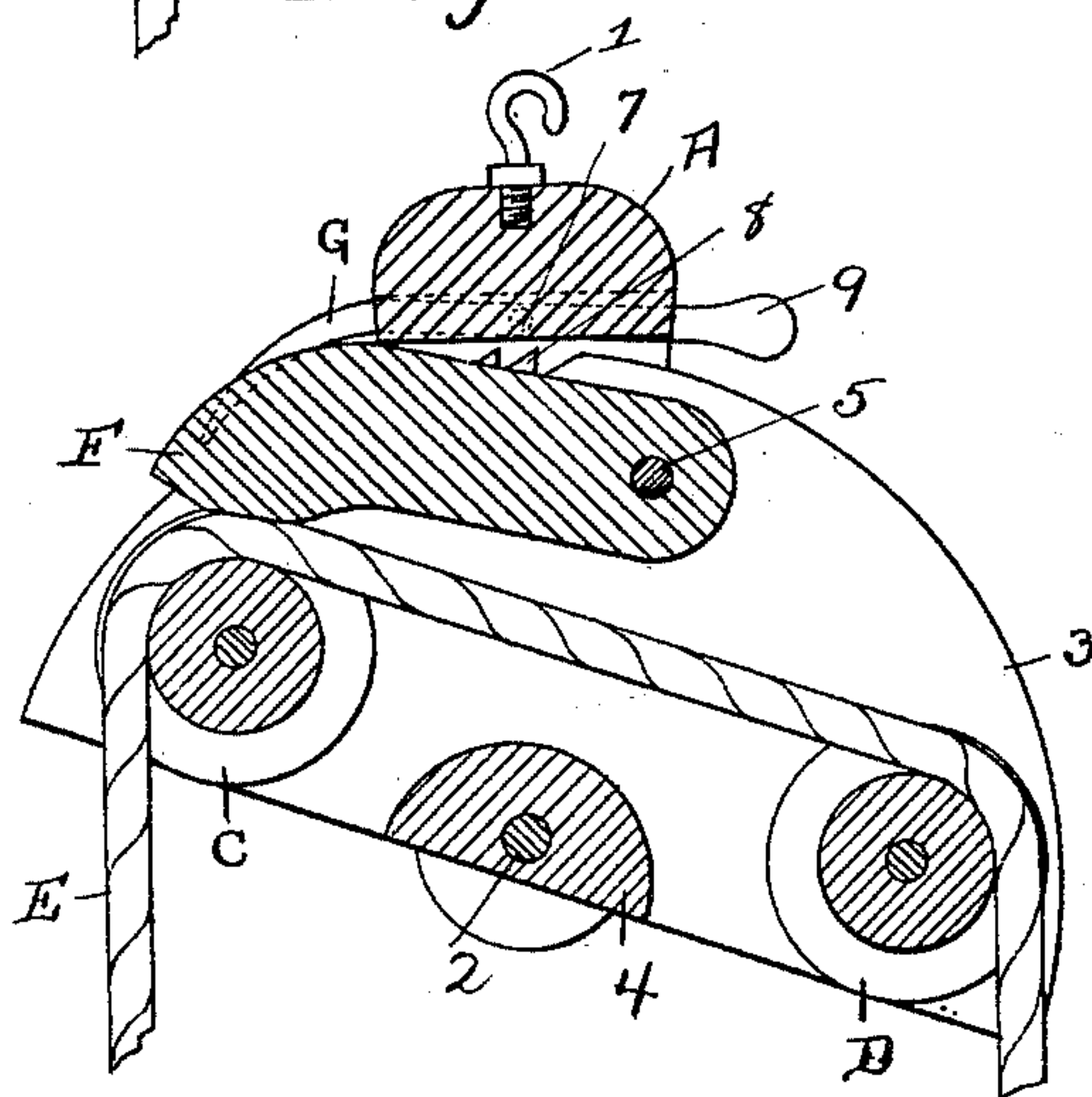
No. 497,731.

Patented May 16, 1893.

*Fig. 1*



*Fig. 2*



Witnesses  
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# UNITED STATES PATENT OFFICE.

BRYANT R. SOCKMAN, OF MOUNT VERNON, OHIO.

## SELF-LOCKING PULLEY.

SPECIFICATION forming part of Letters Patent No. 497,731, dated May 16, 1893.

Application filed February 28, 1893. Serial No. 464,087. (No model.)

*To all whom it may concern:*

Be it known that I, BRYANT R. SOCKMAN, a citizen of the United States of America, residing at Mount Vernon, in the county of Knox and State of Ohio, have invented certain new and useful Improvements in Self-Locking Pulleys, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to an improvement in self-locking pulleys.

The invention will first be described in connection with the accompanying drawings, and then pointed out in the claims.

In the drawings, Figure 1 is a perspective view, partly in section, of my improved apparatus in its normal position. Fig. 2 is a vertical sectional view taken through the center of Fig. 1, showing the apparatus in its locked position.

Referring to the drawings, A is a hanger, having the usual hook 1, by means of which the block may be supported, and provided with bearings 2, in which is mounted a swinging head B, consisting of two semicircular side-plates 3, united by a central bearing-block 4, preferably formed integral with the side-plates. Near each extremity of the horizontal diameter of the swinging head is journaled a sheave, as C and D, the hoisting-rope E running over both these sheaves. In the upper central portion of the swinging head is pivoted, at 5, a locking-block F, having its lower edge adapted to bear on that portion of the hoisting-rope which passes over pulley C. The outer end of the locking-block is curved, as shown, and adapted to engage with the under side of the hanger A when the swinging head is tilted out of its normal position by the load on the hoisting-rope, as will be fully understood from Fig. 2. It is plain that when the fall of the hoisting-rope is drawn down to elevate the load, the swinging-head will be drawn into its normal position and the locking-block released from the hanger, thereby permitting the rope to run freely over the sheaves.

To hold the swinging head in its normal position to permit the lowering of the load, a catch-lever G is provided, being pivoted at 7 in the hanger over one edge of the swinging head, and arranged to engage a series of ratchet-teeth 8 in the edge of the swinging head.

This catch-lever is held normally out of engagement with the ratchet-teeth by the weight of its end 9, and it may be pulled into engagement with the ratchet-teeth by means of a rope 10 attached to the catch-lever at 11 as shown.

The operation of my apparatus is so obvious as to need no further description.

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

1. In a self-locking pulley, the combination, with a hanger and a swinging head pivoted in the hanger, of a pair of sheaves, one journaled at each end of the head, a locking-block above one of the sheaves and pivoted to the head, and a hoisting-rope passing over both sheaves and beneath the locking-block, substantially as described and for the purpose set forth.

2. In a self-locking pulley, the combination, with a hanger and a swinging head composed of two semicircular side plates united by an integral bearing-block pivoted in the hanger, of a pair of sheaves journaled between the plates, one at each end of the head, a locking-block above one of the sheaves and pivoted between the plates, and a hoisting-rope passing over both sheaves and below the locking-block, substantially as described and for the purpose set forth.

3. In a self-locking pulley, the combination, with a hanger and a swinging head pivoted in the hanger, of a pair of sheaves journaled in the head, one at each end, a locking-block above one of the sheaves and pivoted to the swinging head, a hoisting-rope passing over both sheaves and below the locking-block, and a head-locking device arranged to hold the swinging head in its normal position, substantially as described and for the purpose set forth.

4. In a self-locking pulley, the combination, with a hanger and a swinging head composed of two semicircular side plates united by a bearing-block pivoted in the hanger, of a pair of sheaves journaled between the plates, one at each end of the swinging head, a locking-block above one of the sheaves and pivoted between the plates, a hoisting-rope passing over both sheaves and beneath the locking-block, a ratchet on the edge of one of the side



plates, and a catch-lever pivoted at one end to the hanger and having its other end arranged to engage the ratchet, substantially as described and for the purpose set forth.

5 5. In a self-locking pulley, the combination, with a hanger, of a swinging head composed of two semicircular side plates united by a bearing-block pivoted in the hanger; one of the plates having a ratchet on its upper edge,  
10 a pair of sheaves journaled between the plates, one at each end of the swinging head, a locking-block over one of the sheaves and pivoted between the plates, a hoisting-rope passing over both sheaves and beneath the locking-

block, a catch-lever pivoted to the hanger, one 15 end being heavier than the other, the lighter end provided with a pawl, and a locking-rope fastened to the lighter end of the catch-lever, whereby the pawl may be pulled into engagement with the ratchet, substantially as de- 20 scribed and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

BRYANT R. SOCKMAN.

Witnesses:

F. O. LEVERING,

F. V. OWEN.