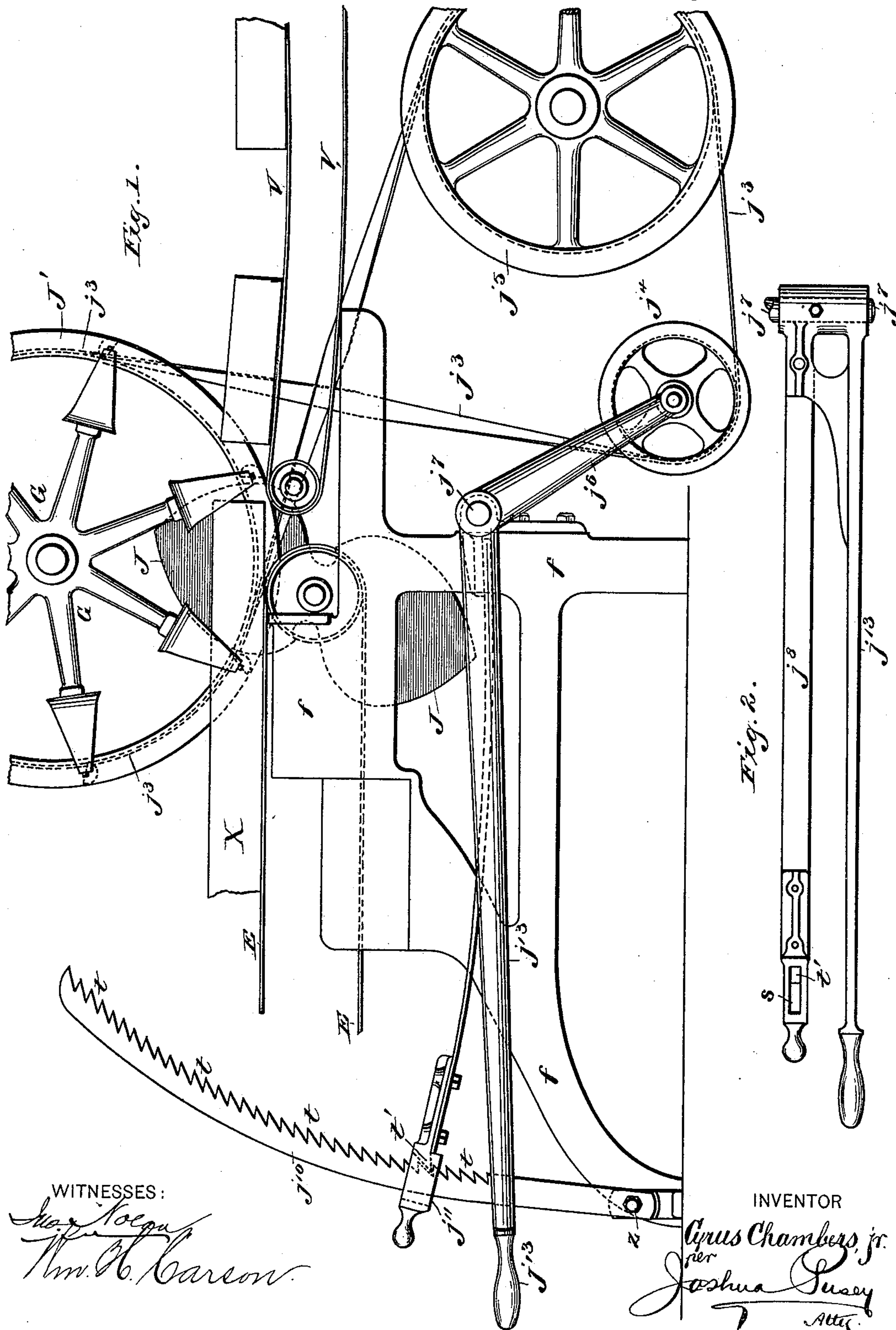


(No Model.)

C. CHAMBERS, Jr.
BELT TIGHTENER FOR BRICK MACHINES.

No. 386,297.

Patented July 17, 1888.



UNITED STATES PATENT OFFICE.

CYRUS CHAMBERS, JR., OF PHILADELPHIA, PENNSYLVANIA.

BELT-TIGHTENER FOR BRICK-MACHINES.

SPECIFICATION forming part of Letters Patent No. 386,297, dated July 17, 1888.

Application filed July 26, 1887. Serial No. 245,307. (No model.)

To all whom it may concern:

Be it known that I, CYRUS CHAMBERS, Jr., a citizen of the United States, residing in the city and county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Belt-Tighteners for Brick-Machines, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, of which—

Figure 1 is a side elevation of that part of a brick-machine in which my invention is immediately connected; Fig. 2, a plan of lever, spring-arm, and rock-shaft detached.

This invention is an improvement upon the brick-machine shown and described in Letters Patent No. 362,204, granted to me May 3, 1887, to which reference is had as forming a part of this specification, particular reference being made to Figs. 9 and 10 of the drawings.

The improvement relates only to the devices for adjusting and controlling the tightener-pulley j^4 for the friction-belt that passes around the tappet-wheel pulley; and it consists in pivoting the lower end of the segment j^{10} , for holding the spring-lever j^8 , and providing the inner edge of said segment with ratchet-teeth in connection with a tooth in the handle-piece j^{11} , adapted to engage with said ratchet-teeth, and thereby hold the said spring-arm, and consequently the tightener-pulley, in any required position, at the same time permitting the ready adjustment of the spring-arm, which is the object of the improvement.

The invention also consists in the combination, with the foregoing parts, of a supplementary hand-lever, which is rigidly attached to the rock-shaft and extends near to and beyond the end of the spring-arm for the purpose of enabling the operator to temporarily, for the exigencies of the moment, increase or decrease the friction on the belt without changing the position of the spring-arm on the ratchet-segment.

Referring to the annexed drawings, in which the same letters are employed to mark the like parts, as in said Patent No. 362,204, J' is the tappet-wheel, and G the cut-off wheel, which carries the cut-off wires.

E is the regulating-belt, carrying the bar of clay X beneath the rotating cut-off wheel.

V is the off bearing belt, which receives the bricks severed from the bar.

J is the cam that regulates the movement of the cut-off wheel.

j^5 is the pulley that drives the friction-belt j^3 , which passes around the pulley J' and around the tightener-pulley j^4 , journaled at the end of an arm, j^6 , on rock-shaft j^7 . The hand-lever j^{13} is attached to rock-shaft j^7 , but in a different position from that seen in said patent, Fig. 9—that is to say, I now extend the lever back so that its free or handle end projects near to the free end of the spring-arm, and thus in a convenient position for the operator. j^8 is the said spring-regulating arm, that is attached to a lug or boss on the lever j^{13} , close to the shaft j^7 . j^{10} is the upright segment, to which the said spring-arm is secured; but instead of using the clamp device shown in said patent I now pivot the lower end of the segment at z in the foot of the frame f , and provide the inner edge of the segment with ratchet-teeth t . I also provide the handle-piece j^{11} on the free end of the spring-arm with a vertical slot, s , Fig. 2, adapted to receive the segment, and also a tooth, t' , for engaging with the teeth of the segment. The slot s is longer than the width of the segment, so as to allow sufficient play of the latter to and fro in order to permit the tooth to be disengaged from and re-engaged with the segment-teeth.

The operation of the improvement will be obvious from the foregoing description. As the tendency of the stress of the belt is to force up and forward the tightener-pulley and to depress the spring-arm the latter is restrained by the tooth engaging with a tooth of the segment. When it is desired to set the tightener so as to increase the friction of the belt, the operator takes hold of the handle end of the spring-lever and draws up the same the required distance, and the segment is pushed back by the tooth; but the instant the arm is released the segment falls or moves forward by its gravity on its pivot and one of its teeth becomes engaged by the tooth t' . When it is desired to set the tightener so as to diminish the friction of the belt j^3 , the operator seizes the segment, draws it back, so as to disengage tooth t' , and adjusts the latter to a suitable

point between two lower ratchet-teeth of the segment.

When it is desired to increase or diminish the friction of the belt j^3 for a moment without changing the set regulation for the usual conditions, the operator raises or turns the rigid lever j^{13} to suit the temporary requirements, without changing the spring-lever on the notched segment. Thus, when the obstruction or temporary condition has passed, no time or labor is lost to again allow the return to the proper or set tension of the friction-belt.

I remark that in lieu of the movable toothed segment and the fixed tooth t' the latter may be movable and the segment fixed, in which case the tooth would be held to its work by a spring or by gravity.

Having thus described my improvement, I claim—

1. The combination of the friction-pulley, the friction-belt, the tightener, the spring-regulating arm, the handle having the tooth, and the toothed segment, movable with relation to each other, all constructed and adapted to operate substantially as and for the purpose set forth.

2. The combination of the friction-pulley, the friction-belt, the pivoted tightener, the spring-regulating arm, the handle having the tooth, and the pivoted toothed segment, all constructed and adapted to operate substantially as and for the purpose set forth.

3. The combination of the friction-pulley, the friction-belt, the pivoted tightener, the spring-regulating arm, the handle having the tooth, and the pivoted toothed segment, together with the hand-lever j^{13} , all constructed and adapted to operate substantially as and for the purpose set forth.

4. The combination, with the pivoted tightener, the spring-arm, and the pivoted toothed segment, of the hand-piece j^{11} , secured to the end of said spring-arm and provided with the handle, slot s , and the tooth t' , projecting into said slot, substantially as and for the purpose set forth.

In testimony whereof I have hereunto affixed my signature this 12th day of July, A. D. 1887.

CYRUS CHAMBERS, JR.

Witnesses:

ISABEL CHAMBERS,
HELEN CHAMBERS.