

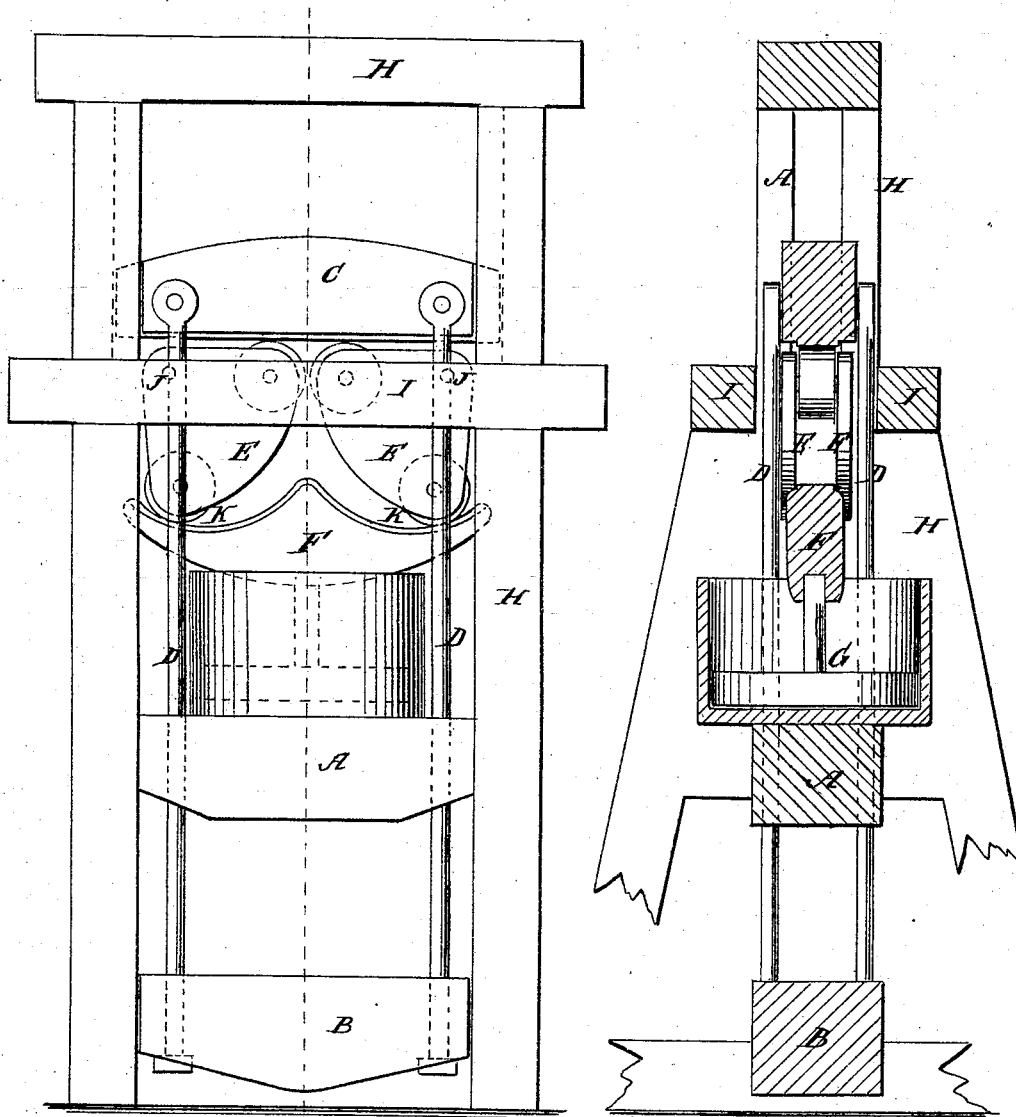
W. H. WALKER.  
Cotton-Presses.

No. 157,251.

Patented Nov. 24, 1874.

*Fig. 1.*

*Fig. 2.*



WITNESSES:

*E. Wolf*  
*A. J. Perry*

INVENTOR:

*W. H. Walker*  
BY *Munnell*  
ATTORNEYS.

# UNITED STATES PATENT OFFICE.

WILLIAM H. WALKER, OF CHARLESTON, SOUTH CAROLINA.

## IMPROVEMENT IN COTTON-PRESSES.

Specification forming part of Letters Patent No. **157,251**, dated November 24, 1874; application filed October 17, 1874.

*To all whom it may concern:*

Be it known that I, WILLIAM H. WALKER, of Charleston, in the county of Charleston and State of South Carolina, have invented a new and Improved Press, of which the following is a specification:

My invention relates to the use of contrivances, in the form of a sector of a circle, for communicating the motion from the cross-head of an engine to the beam which works the platen of a press, upon the principle of the invention for which a patent was granted to me the 21st of July, 1874; and it consists of the upper side of the cross-head of a vertical engine provided with cams or curved forms to work the sectors, which are arranged above the cams and under the beam which raises the platen, so that the lower corners of the sectors to be acted on by the cam hang vertically from their axis, while the others, which act upon the beam, are in a horizontal position to the axis at the beginning, the said cams being so formed that in the fore part of the operation they present a descending plane to the rollers of the sector until they are moved a certain distance from the vertical line in order to give the necessary direction to the force, after which the cams ascend as the sectors change their direction, and they rise above the height of the starting-point, so that, besides applying the power to the best advantage in point of the direction, they also cause a greater range of movement to the follower than is due to the movement of the piston.

Figure 1 is a side elevation of my improved press, and Fig. 2 is a sectional elevation taken on the line *x x* of Fig. 1.

Similar letters of reference indicate corresponding parts.

A is the stationary press-head; B, the platen or follower; C, the beam for working the platen;

D, the rods connecting the platen to the beam; E, the sectors for working the beam C; F, the cross-head for working the sectors, and G the engine for working the cross-head, all being arranged in a strong upright frame, H, on which are beams I parallel to each other, having the sectors pivoted to them at J, so as to swing freely up and down between them. The cross-head acts upon the lower corners of the sectors, and the sectors act by their upper corners on the beam, the said corners being armed with friction-rollers to work easy. K represents the cams on the upper surface of the follower, which act on the sectors. They are concave to the rollers, and rise higher at the inner ends where they meet than they are at the outer ends. This concave form gives a downward incline to the first part, and the reverse in the latter part of the travel of the sectors, by which the direction of the force upon the changing sectors is best adapted for operating them, and by the rise of the inner inclines above the outer ones the platen is made to have a greater movement than the engine has, which is desirable for shortening the press as much as possible.

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

1. The cams K on the cross-head, sectors E, beam C, and the engine G, combined and arranged substantially as specified.

2. The cams extended higher relatively to the cross-head and the beam C on the inner inclines than the outer ones, to amplify the movement of the follower relatively to the engine's movement, substantially as specified.

W. H. WALKER.

Witnesses:

R. R. HUGER,  
SINKLER SIMONS.