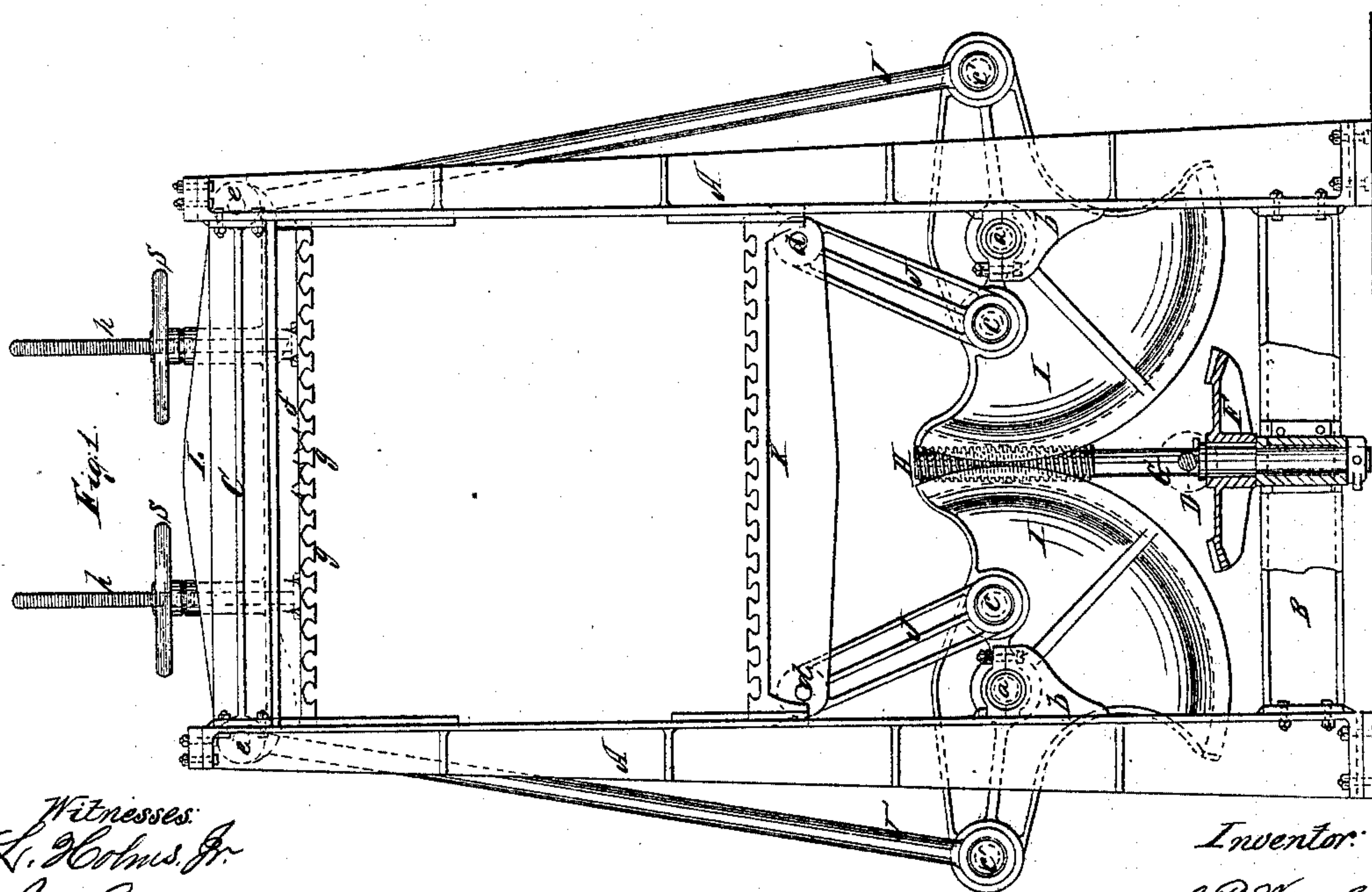
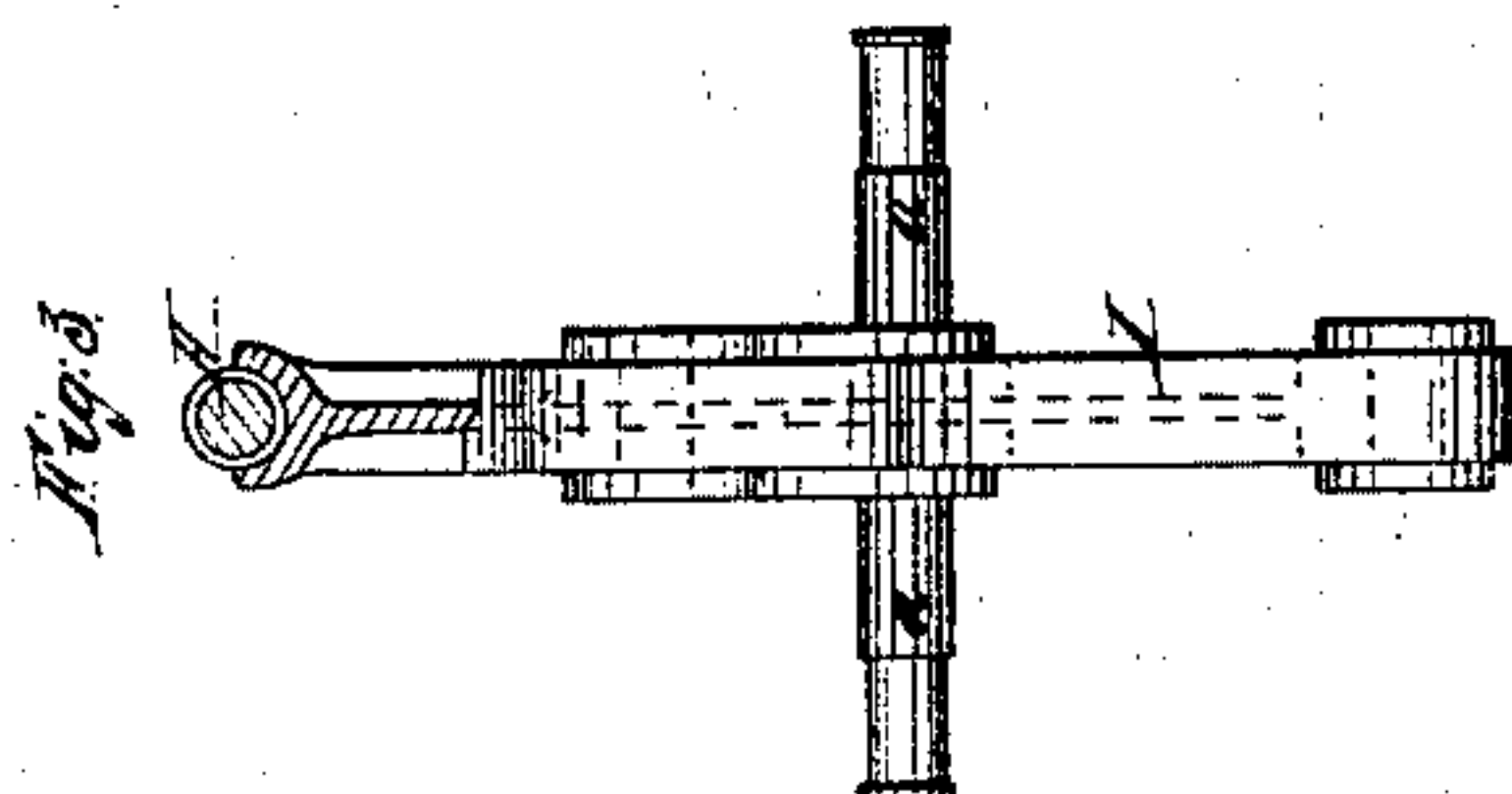
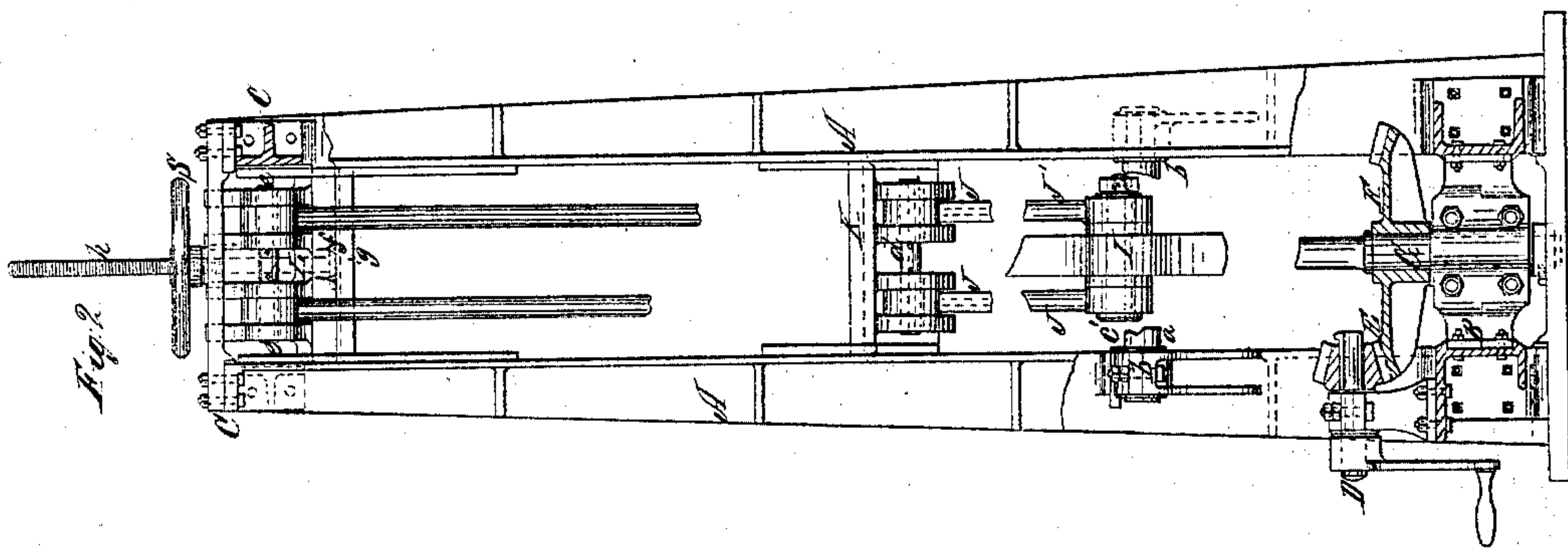


*C. P. Wagner,
Hay Press.*

N^o 68,812.

Patented Sep. 10, 1867.



*Witnesses:
L. Holmes, Jr.
J. W. Coombs*

*Inventor:
C. P. Wagner*

United States Patent Office.

C. PHILIP WAGNER, OF NEW YORK, N. Y.

Letters Patent No. 68,812, dated September 10, 1867.

IMPROVEMENT IN PRESSES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, C. PHILIP WAGNER, of the city, county, and State of New York, have invented a certain new and useful Improvement on Presses, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, which forms part of this specification, and in which—

Figure 1 represents a partly sectional side elevation of a press constructed according to my improvement.

Figure 2, an end sectional elevation of the same; and

Figure 3 a plan or edge view seen from above of one of the toothed segments with its operating screw used in working the press.

Similar letters of reference indicate corresponding parts.

The nature of my invention consists in the combination with the oppositely moving platens; of toothed segments, operating screw, and double toggle-joint motions for giving the necessary and simultaneous action to said platens; likewise in an adjustable packing construction of the one platen.

This, my improved press, which is applicable to pressing cotton and a variety of purposes, includes as a portion of its working mechanism, certain details which are common to other presses, but differently applied or combined. Among such details are toggle-joints set in motion by toothed or worm segments receiving an operating screw between them, and forming what has been termed a close nut arrangement.

Referring to the accompanying drawing, A are the guides or uprights of the press united by lower frame pieces B and upper frame pieces C. D is the driving-shaft, that may be operated by any suitable power, and carries on its inner end a bevel-pinion, E, which gears with and serves to operate a bevel-wheel, F, hung on a vertical shaft, G, formed for a portion of its length into a screw, H, having a fixed bearing or position for its rotation, and working between and gearing with worm or toothed segments I I carried by shafts *a a*, which work in bearings *b b* attached to the uprights A. Each of these segments I I has connected with it on opposite sides of a vertical line intersecting its shaft *a*, and on opposite faces of the segments, rods J J', pivoted as at *c c'*. These rods form toggle-joints with their respective platens K L, the inner set of rods J being pivoted, as at *d*, to the lower platen K, and the outer set of rods J' being jointed, as at *e*, to the upper platen L. This arrangement, it will be seen, gives a reverse action to the platens, raising the lower while lowering the upper platen, and *vice versa*, accordingly as the screw H is made to operate the segments I I, and the arrangement or attachment of these toggle-joints is such that in working the platens towards each other to effect the pressure, they at first move rapidly and afterwards slowly, the importance of which for pressing flocculent and other substances will be readily understood. By causing both platens to move simultaneously in opposite directions, though it may be at different velocities, not only is the work to be done accomplished more rapidly, say in half the time, but a more perfect or gradual pressure from opposite sides secured; while by employing reversely operating toggle motions worked by the one screw to effect the same, a uniform action is obtained in a simple, steady, and efficient manner. To facilitate the work or to adjust the platens to the work, it is advisable that one of them, say the upper one, should be so constructed as that a plank or planks may be interposed as a packing to vary, as it were, the thickness of the platen. For this purpose the lower or inner plate or board *f* of the one platen L, carrying the cording and pressing slats *g*, is provided with vertical screws *h* passing through the upper portion of said platen, and on to which are hand or nut-wheels, S, that, accordingly as they are turned to the right or left, work up or down the board *f*, closer to or further from the main body of the platen, to admit of the insertion, tightening, or removal of a plank or planks, as a packing interposed between said plate or board *f* and main body of the platen.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination of the screw H, toothed segments I I, toggle-joints J J', and platens K L, all being arranged for operation together essentially as herein set forth.

2. The inner pressing-board or plate *f*, arranged adjustably with relation to the body of the platen substantially as and for the purpose set forth.

C. PH. WAGNER.

Witnesses:

G. W. REED,

J. W. COOMBS.