

No. 704,147.

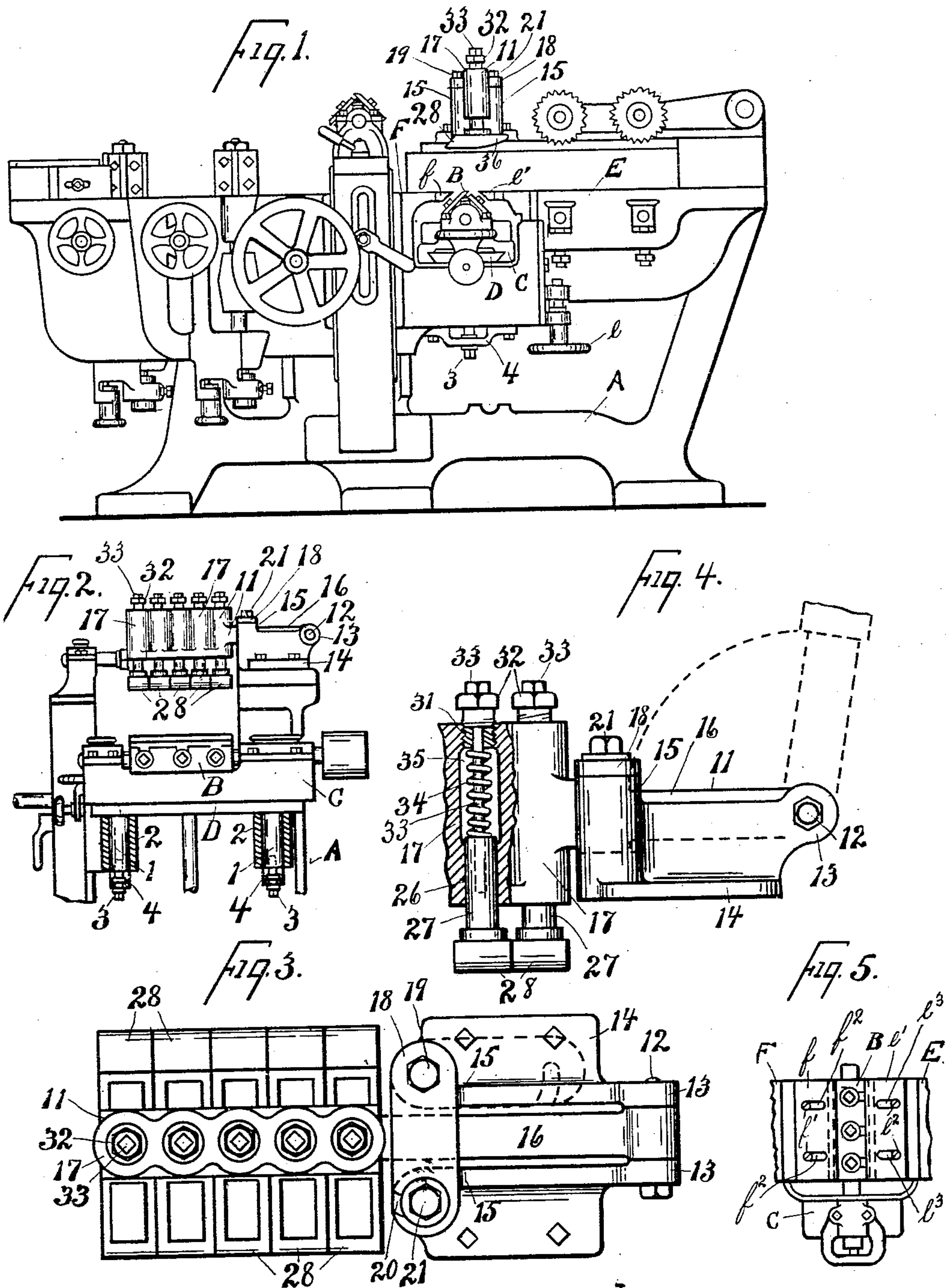
Patented July 8, 1902.

J. R. THOMAS.

PRESSURE DEVICE FOR WOODWORKING MACHINES.

(Application filed Dec 23, 1901.)

(No Model.)



Witnesses

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# UNITED STATES PATENT OFFICE.

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## PRESSURE DEVICE FOR WOODWORKING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 704,147, dated July 8, 1902.

Original application filed May 29, 1901, Serial No. 62,413. Divided and this application filed December 23, 1901. Serial No. 87,020. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN R. THOMAS, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Pressure Devices for Woodworking-Machines, of which the following is a specification.

This application is a division of my application for patent on improvement in molding-machine filed May 29, 1901, Serial No. 62,413.

It is the object of my invention to provide new and improved pressure devices above the cutter-heads of woodworking machinery; and my invention consists in mounting a pressure device of the character described on a frame in such manner that the same may be swung out of the way of the cutter-head for exposing the latter and providing the swinging frame with a plurality of pressure-feet separately yielding, so that different thicknesses of stock may be fed through the machine side by side over the cutter-head, and, further, in the parts and in the construction, arrangement, and combinations of parts herein more fully described and claimed.

In the drawings, Figure 1 is a side elevation of my improved device shown in connection with so much of a woodworking-machine as is advisable to illustrate my invention. Fig. 2 is a transverse section of so much of a woodworking-machine as is advisable to show my invention and showing my improved device in side elevation. Fig. 3 is a plan view of my improved device. Fig. 4 is a side elevation of the same, partly broken away for better illustration of parts and indicating the swinging frame in raised position in dotted lines; and Fig. 5 is a detail in plan view indicating the cutter-head and adjacent table-lips.

A represents the frame of the machine, in which the lower cutter-head B may be suitably mounted. I have shown the same journaled in a yoke C on a saddle D, the latter being vertically adjustable with relation to the frame. I have shown a feeding-in table E, adjustable up and down by means of an adjusting-screw  $e$ , and a table F after the cutter-head, with the respective tables provided with lips  $e' f$ , adjustable to and from the cut-

ter-head, as by means of screws  $e^2 f'$ , taking through slots  $e^3 f^2$  in the lips into the table-frames. The table-frames may be collectively adjustable up and down. The saddle has posts 1, taking into sockets 2 on the frame-adjusting screws 3, collared to lugs or caps 4, extending from the sockets, the adjusting-screws screwing into the posts and adapted to raise and lower the same and the saddle with its cutter-head. A swinging frame 11 is pivoted on a bolt 12, taking into ears 13 on the plate 14, secured to the frame and having lugs 15 extending therefrom. The swinging frame has a shank 16 and a socket or sockets 17. The shank 16 takes and has a snug fit between the lugs 15. A link 18 swings about a bolt 19 on one of the lugs and has a slot 20 taking about a bolt 21 in the other lug. The link 18 fits snugly above the shank 16 when the swinging frame 11 is in depressed or normal position, and the bolts 19 and 21, with the link 18, hold the swinging frame securely in depressed position. Each of the sockets 17 has a bore 26 for receiving a shank 27 of a pressure-foot 28. At its upper end the socket has an internally-threaded bore 31 for receiving a bolt 32. A bolt 33 takes slidably through the bolt 32 and is screwed into the top of the pressure-foot shank 27. A spring 34 is received by a pocket 35 and takes between the upper face of the pressure-foot shank 27 and the lower face of the bolt 32. The bolt 32 by its adjustment serves to regulate the tension of the spring. The bolt 33 by its adjustment serves to regulate the downward limit of the pressure-foot 28. Each pressure-foot has an upwardly-inclined face 36 at its lower feeding-in end. There are preferably a plurality of sockets 17 side by side on a swinging frame in order that separate pressure may be given to a plurality of strips of different thicknesses passing through the machine side by side or the combined pressure of a plurality of the pressure-feet be exerted upon a wider strip. These pressure-feet serve to hold the stock firmly against the action of the lower cutter-head. If it is desired to reach the lower cutter-head from above or to adjust the lip adjacent thereto, the link 18 may be turned



aside and the swinging frame 11 raised upwardly and swung back, thereby exposing the lower cutter-head or adjacent parts and permitting ready access thereto. I have shown  
 5 the swinging frame 11 pivoted to the machine-frame to one side of the table, with the swinging frame overhanging and freely suspended over the table and the pivot and fastening device for the swinging frame located to one  
 10 side of the table.

I claim—

1. In woodworking machinery, the combination with a machine-frame, and a cutter-head therefor, of a pressure device comprising  
 15 in combination a swinging frame projecting sidewardly over the cutter-head, a plurality of separately-yielding pressure-feet side by side in the swinging frame, and means for securing the swinging frame rigidly in place,  
 20 substantially as described.

2. In woodworking machinery, the combination with a machine-frame, a work-supporting table therefor, and a cutter-head, of  
 25 a swinging frame pivoted with relation to the machine-frame to one side of the table and freely overhanging the cutter-head, with a plurality of separately-yielding pressure-feet side by side in the swinging frame, and a  
 30 fastening device for securing the swinging frame against upward movement to the same side of the table as the pivot, substantially as described.

3. In woodworking machinery, the combination of a pressure device above the cutter-head comprising a swinging frame, a plurality  
 3 of sockets in the frame, pressure-feet taking into the sockets, springs taking against the pressure-feet for resisting their upward movement, with the swinging frame constructed  
 10 and arranged for being raised upwardly away from the cutter-head, substantially as described.

4. In a pressure device for woodworking machinery, the combination of a machine- 45  
 frame, a cutter-head therefor, a swinging frame extending above the cutter-head and pivoted to the main frame, sockets for the swinging frame above the cutter-head, pressure-feet having shanks taking into and slid- 50  
 ing in the sockets from their lower ends, bolts screwing into the sockets from their upper ends, springs interposed between the shanks and bolts for forcing the pressure-feet downwardly, and additional bolts taking 55  
 slidably through the first-named bolts and screwing into the shanks of the pressure-feet for adjustably limiting the downward movement of the pressure-feet, with means for rigidly holding the swinging frame above 60  
 the cutter-head and arranged for releasing the swinging frame and permitting the same to be swung upwardly away from the cutter-head, substantially as described.

5. In a woodworking-machine, the combination of a main frame, a cutter-head, a plate 65  
 for the frame, ears extending therefrom, a swinging frame pivoted to the plate and arranged to take snugly between the ears, a link for rigidly holding down the swinging 70  
 frame between the ears, sockets for the swinging frame extending above the cutter-head, pressure-feet having shanks taking into the sockets, bolts for the shanks, and springs taking between the shanks and bolts, and arranged for permitting the swinging frame to 75  
 be raised away from the cutter-head, substantially as described.

In testimony whereof I have signed my name hereto in the presence of two subscribing 80  
 witnesses.

JOHN R. THOMAS.

Witnesses:

PARKE S. JOHNSON,  
 WILLIAM H. McMILLAN.