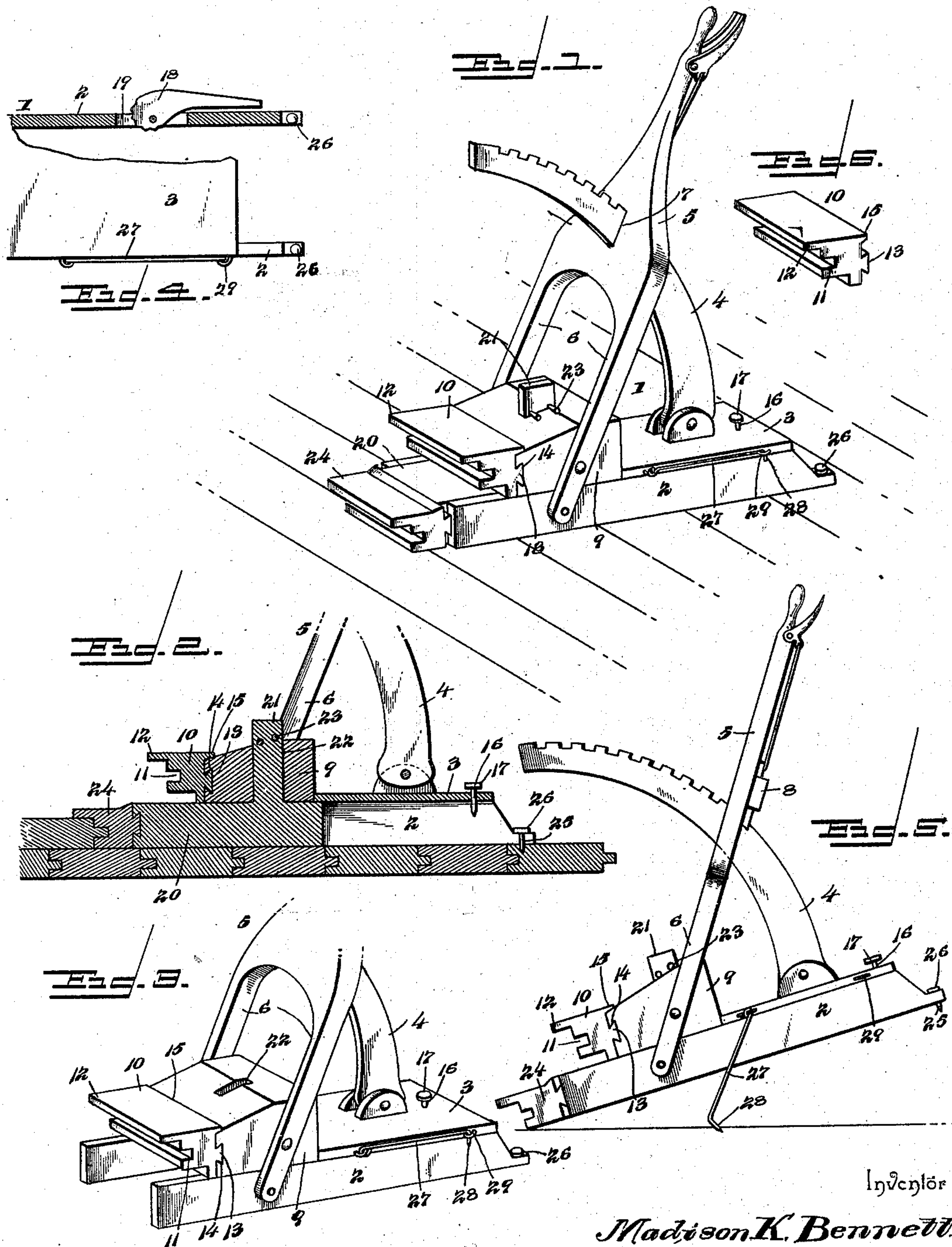


(No Model.)

M. K. BENNETT.  
FLOOR AND CEILING CLAMP.

No. 559,052.

Patented Apr. 28, 1896.



Inventor

Madison K. Bennett.

Witnesses

E. H. Stewart  
[Signature]

By *his* Attorneys.

Cashow & Co.



# UNITED STATES PATENT OFFICE.

MADISON K. BENNETT, OF RUSHVILLE, ILLINOIS.

## FLOOR AND CEILING CLAMP.

SPECIFICATION forming part of Letters Patent No. 559,052, dated April 28, 1896.

Application filed December 24, 1894. Serial No. 532,825. (No model.)

*To all whom it may concern:*

Be it known that I, MADISON K. BENNETT, a citizen of the United States, residing at Rushville, in the county of Schuyler and State of Illinois, have invented a new and useful Floor and Ceiling Clamp, of which the following is a specification.

My invention relates to a floor and ceiling clamp or joiner designed for forcing flooring and ceiling boards to place and holding the same while being secured; and the objects in view are to provide plungers for operating in the plane of the flooring-boards when the latter are secured to the joists or are arranged as a double or second floor upon the upper surface of a previously-laid floor. Furthermore, to provide detachable face-blocks to agree with the thickness of the boards to be laid and the size of the tongues on said boards; and, furthermore, to provide improved means for securing the clamp either to a joist or to the surface of a previously-laid floor.

Further objects and advantages of the invention will appear in the following description, and the novel features thereof will be particularly pointed out in the appended claims.

In the drawings, Figure 1 is a perspective view of a clamp embodying my invention, the same being applied to the surface of a previously-laid floor. Fig. 2 is a side view, partly in section, of the same. Fig. 3 is a partial perspective view showing the device applied to a joist for laying a single or first floor. Fig. 4 is a partial plan view of the same to illustrate the engagement of the cam with the side of a joist. Fig. 5 is a partial side view showing the inclined position of the device and the means for securing the same in its inclined position. Fig. 6 is a detail view of the face-block.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

1 designates the body portion or base of the clamp, having parallel side bars 2, connected at their rear ends by a platform 3, to which is pivotally connected a segmental notched arm 4, and 5 represents an operating-lever bifurcated at its lower end to form legs 6, which are pivoted at their lower extremities to the outer surfaces of the side bars 2. The

lever is provided at the proper point with a guide 7 for the reception of the segmental arm and carries a spring-actuated pawl 8 for engaging the teeth or notches of the arm to secure the lever at the desired adjustment.

Arranged between the legs of the lever and pivotally connected at an intermediate point thereto is a plunger 9, provided at its front end with a face-block 10, having a plow or groove 11 to receive the tongue of a flooring-board, and said face-block is also provided with an overhanging flange 12 to bear upon the upper surface of the flooring-board and prevent straining the tongue. In order to provide for the use of interchangeable face-blocks to suit flooring-boards of different thicknesses and having tongues of different sizes, I provide the face-block upon its rear side with a dovetailed tongue 13 to fit in a dovetailed groove 14 in the front of the plunger, a flange 15 being arranged at the upper side of the face-block to overlap the front edge of the plunger and strengthen the dovetailed joint.

Inasmuch as the bottom of the plunger 9 is approximately in the plane of the upper edges of the side bars 2, it will be seen that when said side bars are arranged upon opposite sides of a joist said plunger will be arranged approximately in the plane of the flooring-boards to be laid, and in order to secure the frame or base of the device in this position I employ a spur 16 at the rear end of the platform 3, and provided above the plane of the upper surface of the platform with a head 17, upon which a blow may be struck with a hammer to drive the point of the stud into the upper surface of the joist, and in addition to this stud I employ a cam-lever 18, mounted in a slot 19, near the rear end of one of the side bars and adapted to be turned to engage the side surface of the joist. When, however, a second or double flooring is to be laid, and it is consequently necessary to arrange the lower edges of the side bars upon the surface of the first floor, as shown in Fig. 1, I employ an auxiliary plunger 20, carried by the main plunger 9 and connected thereto by means of a stem 21, which is engaged in a vertical opening 22 in said main plunger. The auxiliary plunger is thus disposed between the planes of the



inner surfaces of the side bars 2, whereby its lower surface is arranged approximately in the plane of the lower edges of said bars, the stem 21 being secured in place by means of  
 5 wedges or tapered pins 23. The auxiliary plunger is provided with a face-block 24, which corresponds in construction and function with the face-block 10, above described, and is interchangeable, as specified.

10 In order to secure the frame or base to the surface of a previously-laid floor, I employ studs 25, similar to the stud 16 and projecting below the lower edges of the side bars at their rear ends, said studs being provided  
 15 with impact heads 26 to receive the blow of a hammer. It occasionally is necessary to dispose the frame or base of the clamp in an inclined position, as shown in Fig. 5, as when approaching a wall or other obstruction, and  
 20 in order to provide for securing the clamp under such circumstances I employ swinging spurred arms 27, loosely connected at their front ends to the frame and having terminal spurs 28 to engage the floor. When  
 25 not in use, the free ends of these arms are engaged in the keepers 29.

This being the construction of the improved clamp, the operation, which is similar to that of clamps heretofore in use, will be understood, and it will be obvious that the device  
 30 is capable of adjustment in various ways to adapt it for use in laying either a first or second floor of timber of any desired thickness, and as the notched arm which secures the  
 35 lever at the desired adjustment is pivotally connected to the frame or base said frame or base may be of minimum length in order to adapt it for use close to a wall or other obstruction.

40 In practice various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

45 Having described my invention, I claim—

1. The combination with a frame or base and means for securing the same against backward movement, of a pivotal bifurcated lever, means for locking the same at the desired  
 50 adjustment, a main plunger pivotally connected to the lever above the plane of the lower side of the frame or base and provided with means for engaging a flooring or ceiling board, and an auxiliary plunger secured to  
 55 and carried by the main plunger with its lower surface approximately in the plane of the lower side of said frame or base, the auxiliary plunger being provided with a face-block, substantially as specified.

2. The combination with a frame or base, 60 having parallel side bars connected at their rear ends by a horizontal platform, and means for securing said frame or base against backward movement, of a bifurcated lever having  
 its legs pivotally connected to the outer sides 65 of said bars, means for locking the lever at the desired adjustment, a plunger arranged between and pivotally connected to the legs of the lever with its lower side above the plane of the edges of said side bars, a face-block adjustably secured to the front end of said  
 70 plunger, an auxiliary plunger arranged between the planes of the inner surfaces of said side bars with its lower surface approximately in the plane of the lower edges thereof; and  
 75 provided with a stem which is arranged in an opening in the main plunger, means for securing said stem in place, and a face-block adjustably secured to the front end of the auxiliary plunger, substantially as specified. 80

3. A clamp for adjusting flooring and ceiling boards, the same having a frame or base comprising parallel side beams connected at their rear ends by a platform, a lever pivotally connected to the side beams, means for locking  
 85 said lever at the desired adjustment, main and auxiliary plungers carried by said lever and arranged in different horizontal planes, the upper plunger being pivotally connected with the lever and arranged above the plane  
 90 of the frame and the lower plunger being secured to the upper plunger and arranged between said side beams, the lower plunger being removable from the upper plunger to allow the frame to fit upon a joist with the side  
 95 beams upon opposite sides thereof, spurs arranged at the rear end of the base or frame respectively at the lower edges of the side beams and at the under surface of said platform and adapted respectively to engage a  
 100 joist when the clamp is used with and without the auxiliary plunger, a cam carried by one of the side beams for engaging the side of a joist when said side beams are arranged upon opposite sides thereof, and pivotal terminally-spurred arms attached to the frame  
 105 or base and adapted to be arranged at an inclination to the plane thereof to engage a joist when the frame or base is disposed at an inclination to the plane of the joist, substantially as specified. 110

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

MADISON K. BENNETT.

Witnesses:

JOHN C. BAGBY,  
 KATE B. BAGBY.