

Jan. 2, 1923.

O. C. JOHNSON.  
PIANO BENCH AND COT COMBINATION.  
FILED JAN. 30, 1922.

1,441,155.

2 SHEETS—SHEET 1.

Fig. 1

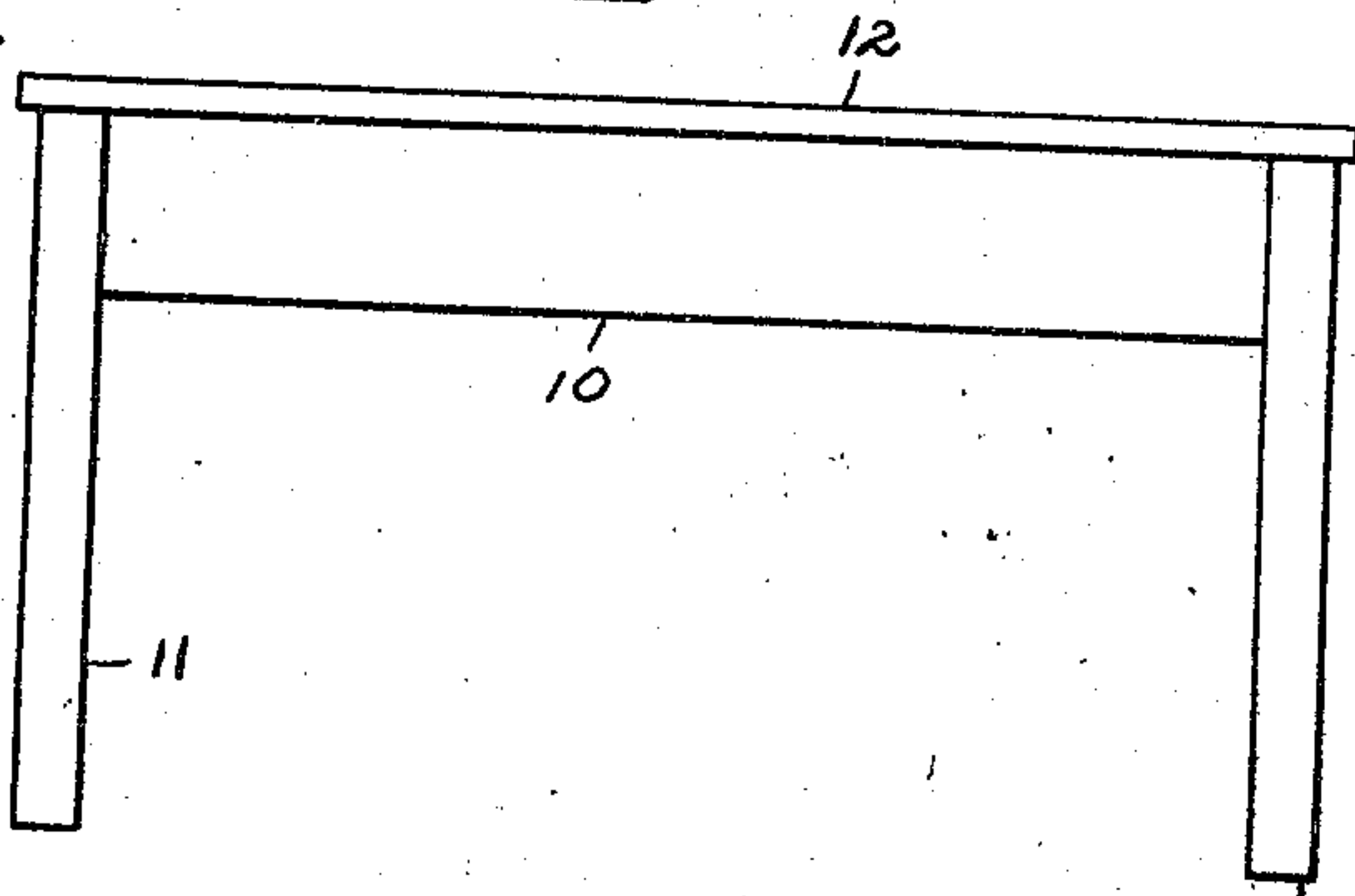


Fig. 2

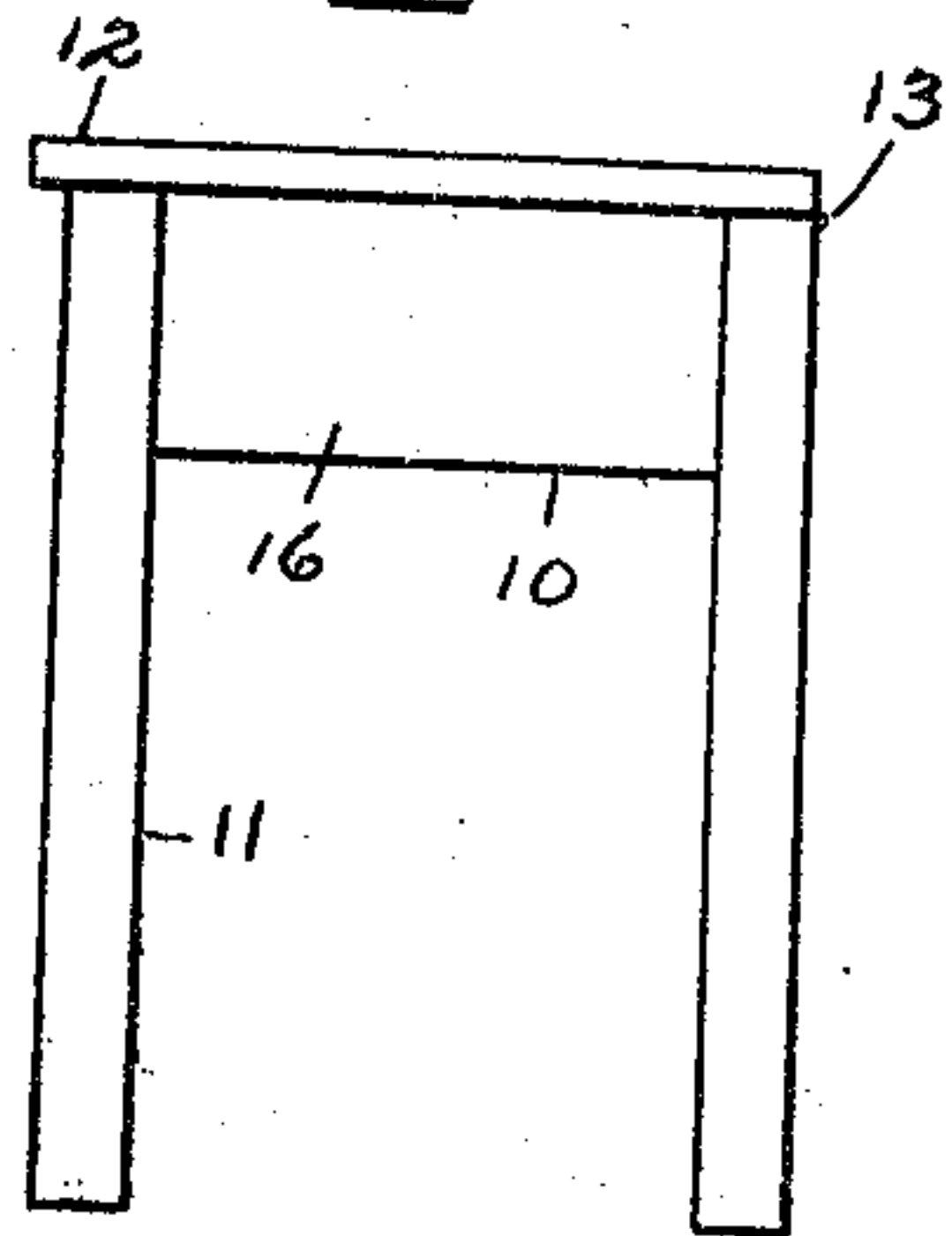


Fig. 3

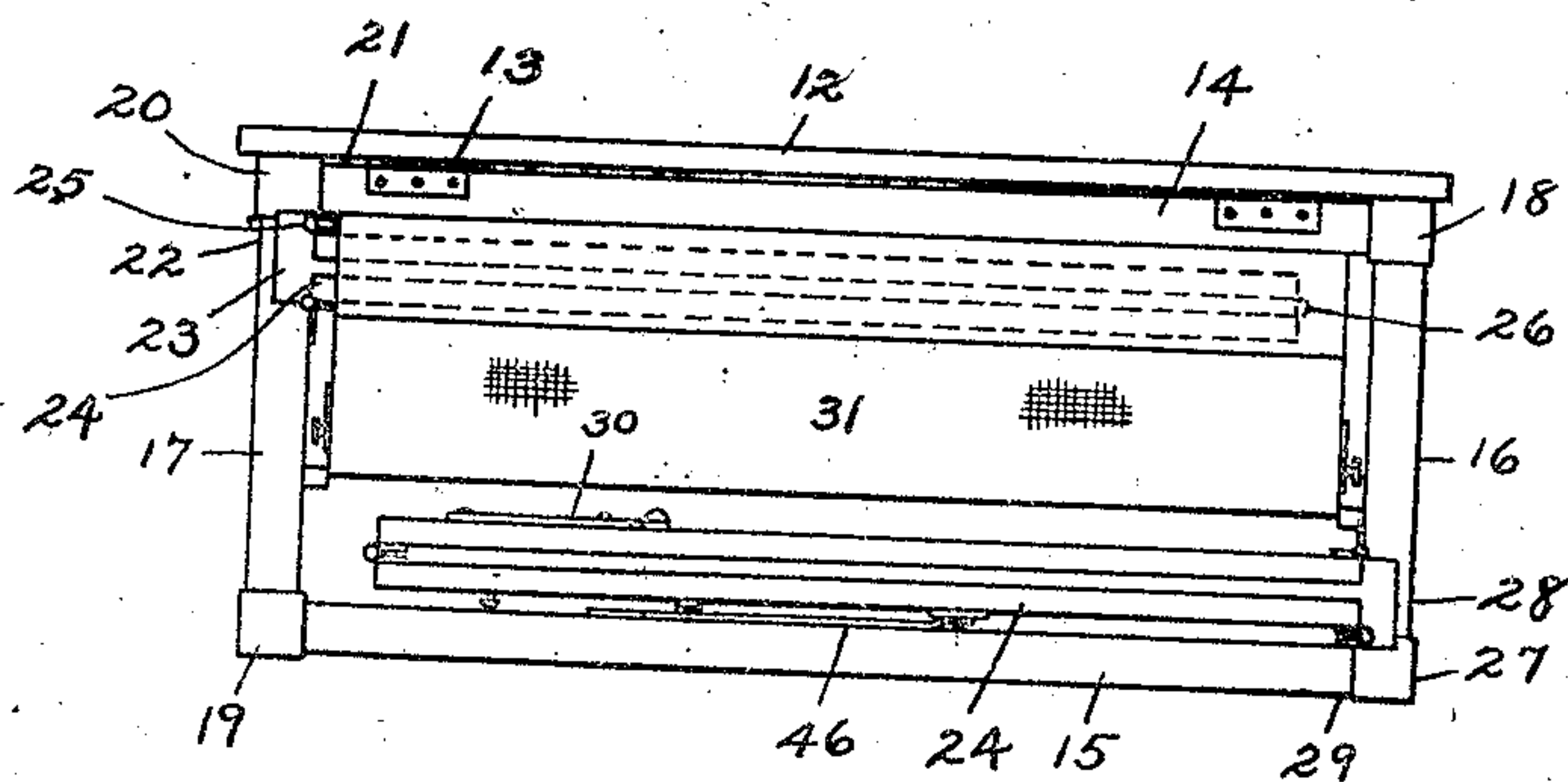
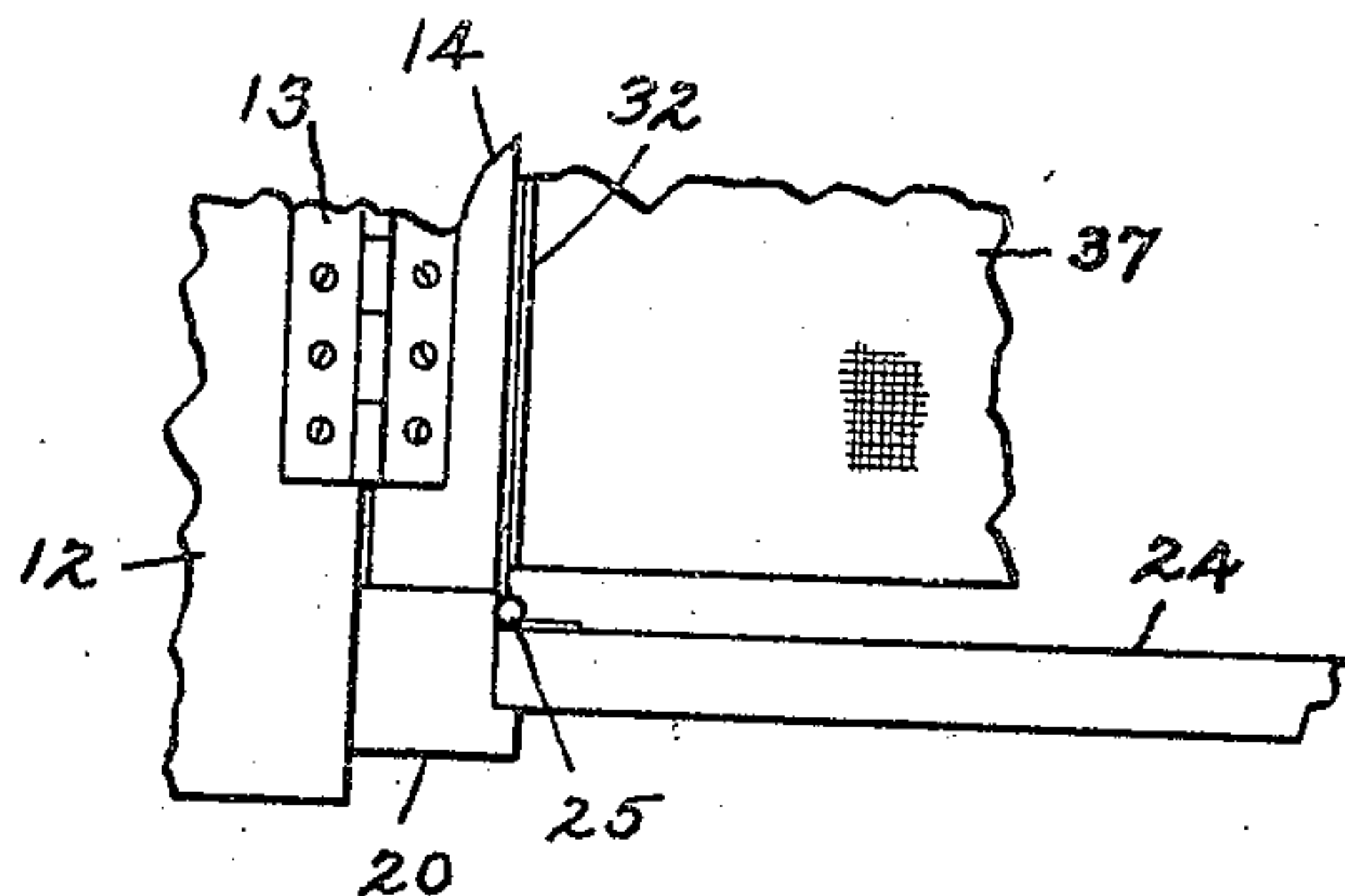


Fig. 4



INVENTOR:

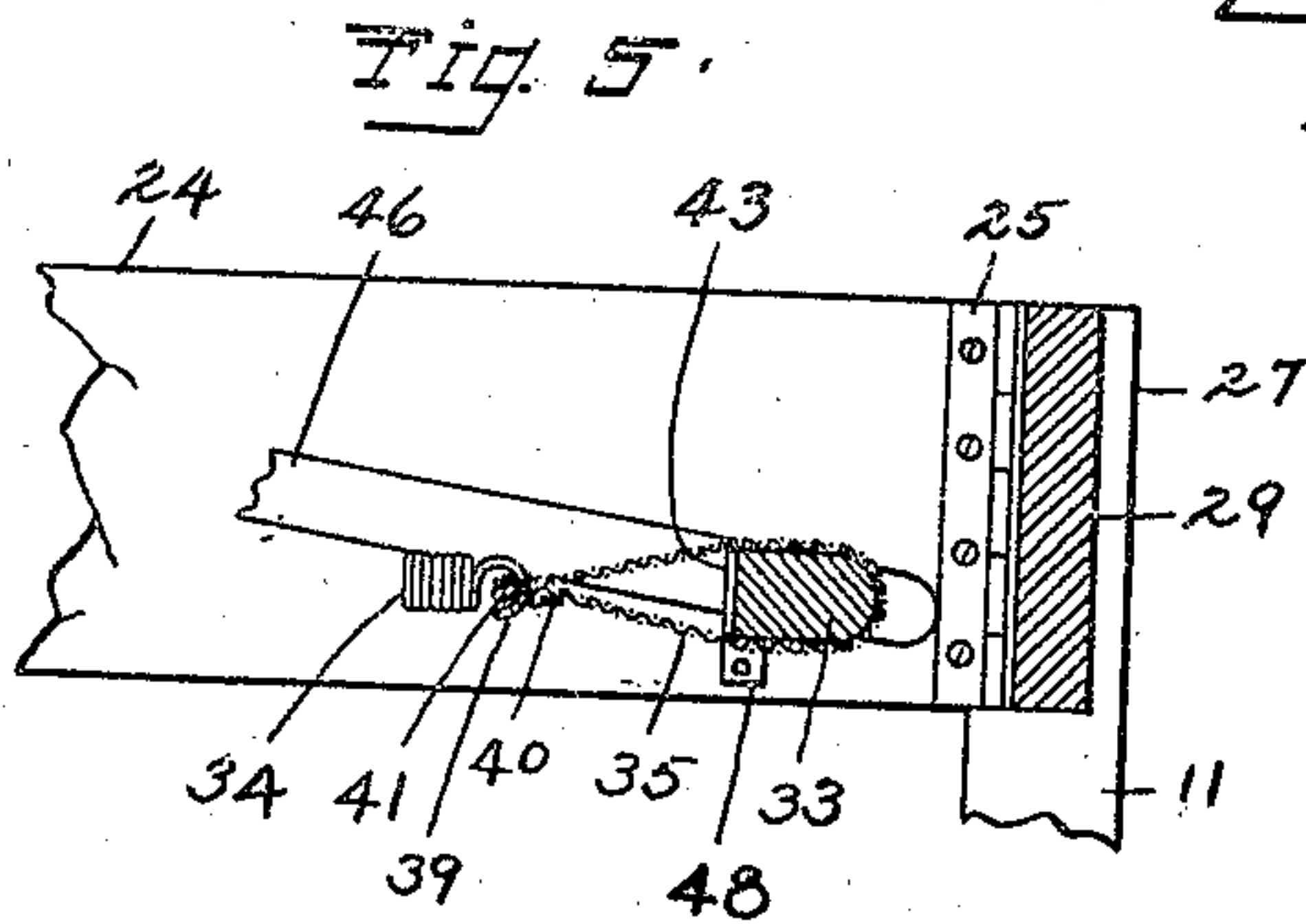
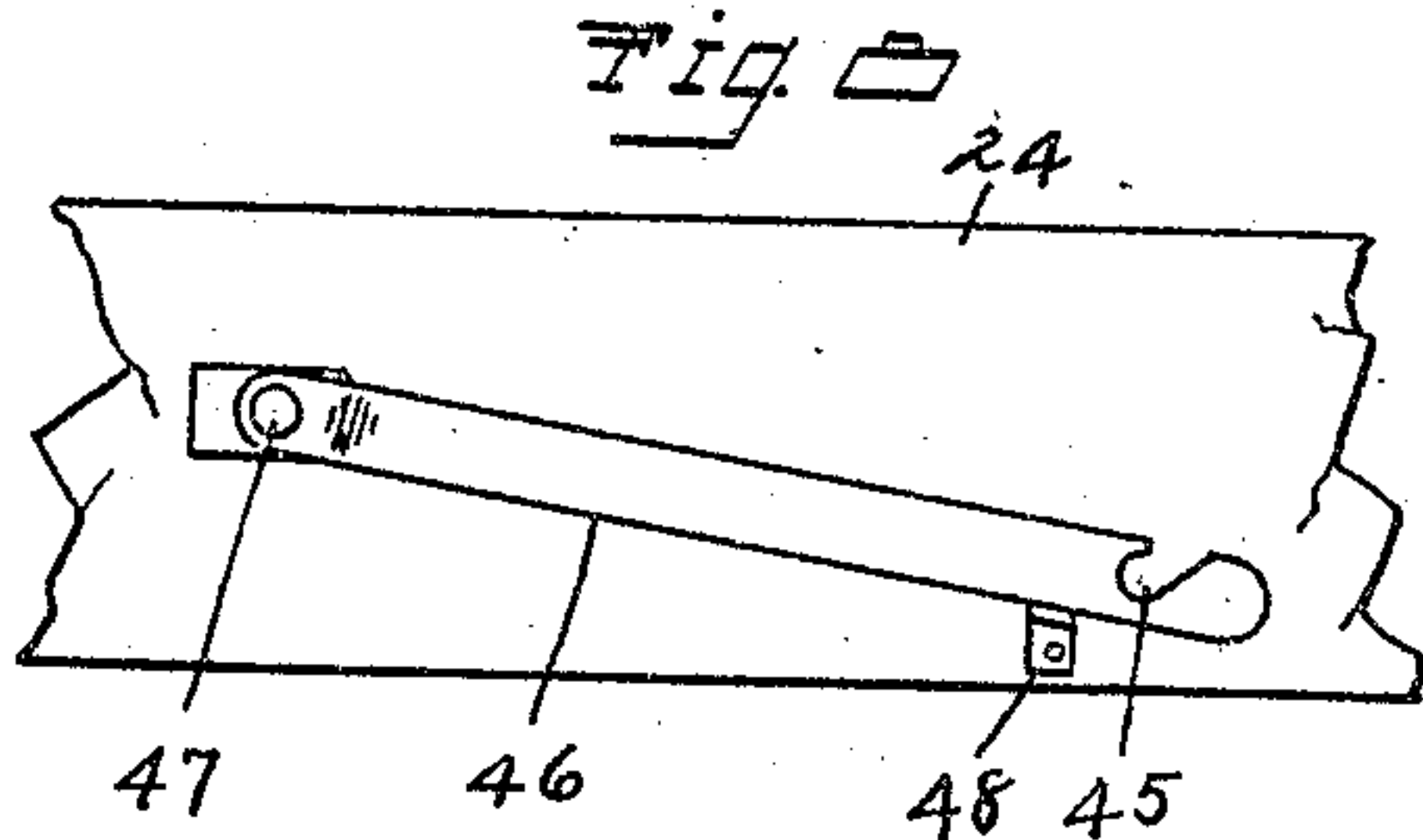
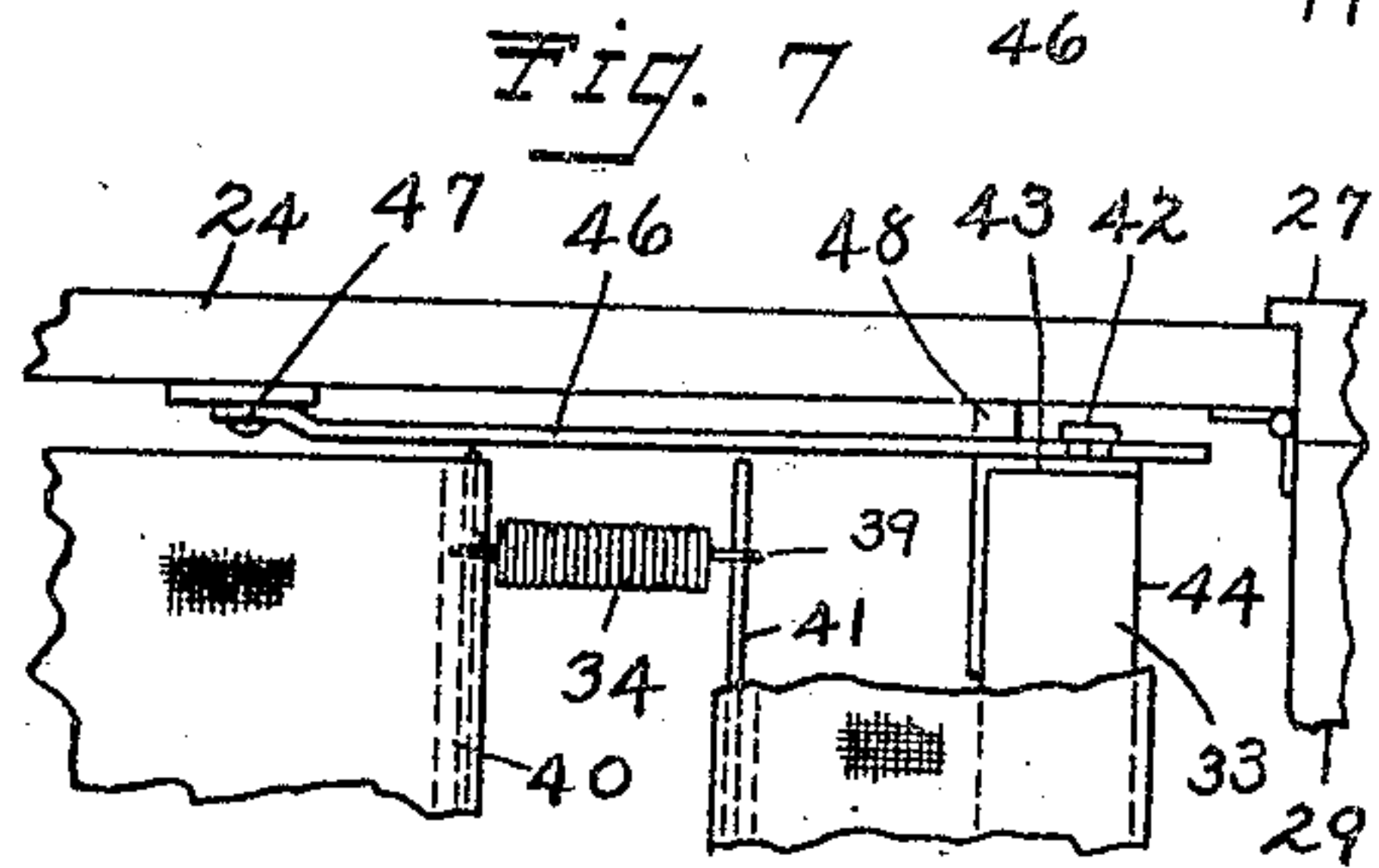
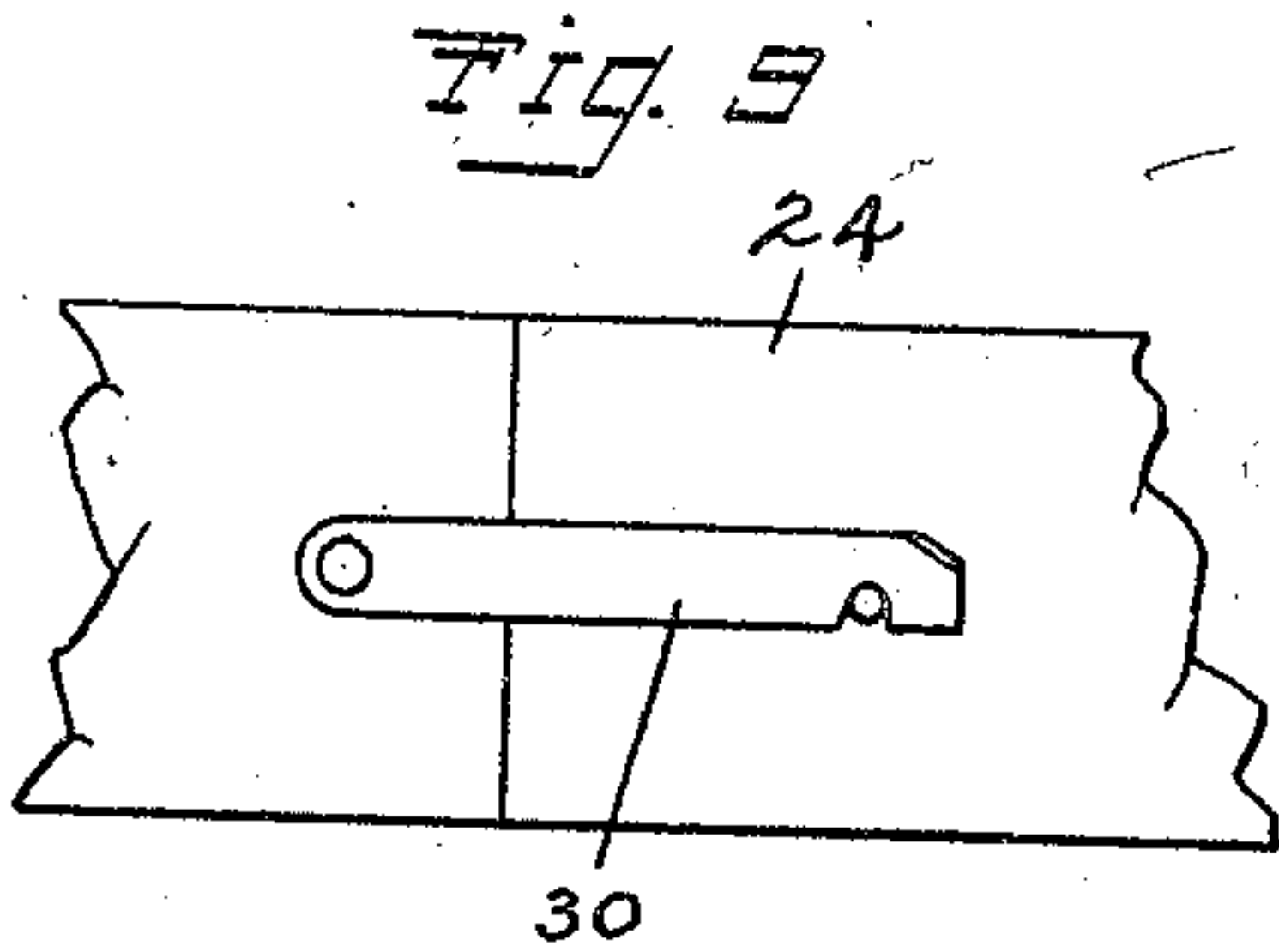
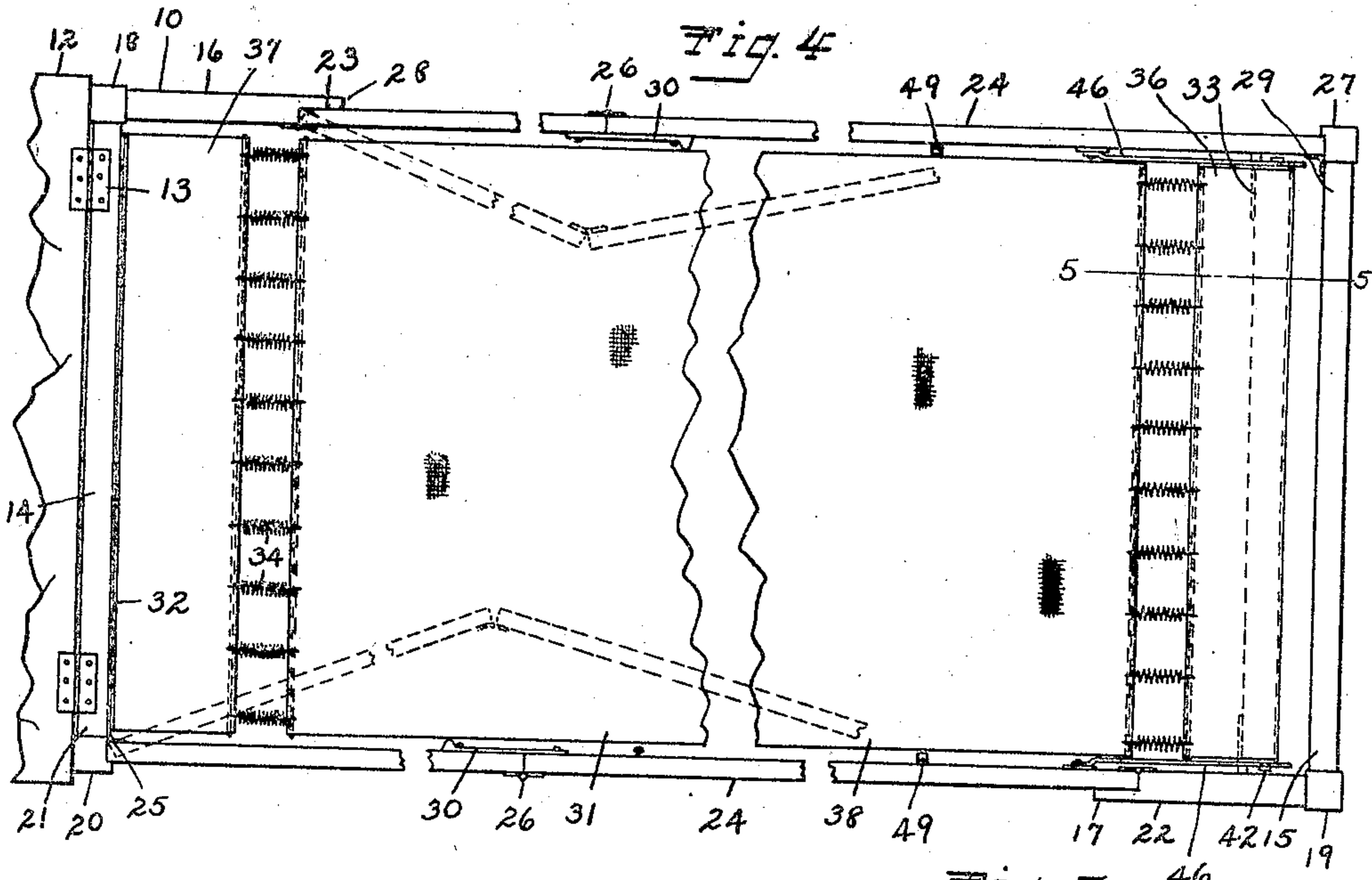
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# UNITED STATES PATENT OFFICE.

OSCAR CHARLES JOHNSON, OF NEW BRITAIN, CONNECTICUT.

PIANO BENCH AND COT COMBINATION.

Application filed January 30, 1922. Serial No. 532,595.

*To all whom it may concern:*

Be it known that I, OSCAR CHARLES JOHNSON, a citizen of the United States, residing at New Britain, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Piano Bench and Cot Combinations, of which the following is a specification.

My invention relates to improvements in piano-bench and cot combinations and the object of my improvement is to produce a device that is of collapsible form and that in one position of the parts is adapted to serve as a piano bench and in another position thereof is adapted to serve as a cot, and that, furthermore, involves certain details whereby the arrangement of the parts for the one use or the other is facilitated.

In the accompanying drawing:—

Figure 1 is a side elevation of my improved piano-bench and cot combination in the folded or closed position, as used for a piano-bench, showing the particular side that serves as the foot-board structure with the device in the opened-out position, as used for a cot.

Figure 2 is an end elevation of the same, showing the end wall of the bench that is affixed to the head-board and serves as a part of the stringer or side board structure of the cot that is on the right side.

Figure 3 is a plan view of the same with the cover open.

Figure 4 is a plan view with the parts in the open position, for use as a cot, some of the parts being indicated in the partially collapsed position by broken lines.

Figure 5 is a longitudinal sectional view on the line 5—5 of Fig. 4.

Figure 6 is a fragmentary plan view on an enlarged scale of one of the front corners.

Figure 7 is a similar view of one of the rear corners.

Figure 8 is a fragmentary side view of one of the strut levers.

Figure 9 is a side elevation of one of the latches for the joint between the opposed ends of the stringer or side board sections.

My improved piano-bench and cot combination comprises with the parts set up for use as a piano-bench what appears to be a box-like structure 10 that is set up on

four legs 11 and is surmounted by a top or cover 12 that serves as the seat proper, said seat 12 being connected to the headboard 14 by means of suitable hinges 13.

Said box-like structure 10 comprises the legs 11 at the corners, the head board 14 along one of the longer sides or sides proper, the foot board 15 along the opposite side proper, and relatively shorter end or cross-boards at the ends. Said end boards comprise the end board 16 at the right side and the end board 17 at the left side.

When used as a cot, the cover 12 is tilted back.

The head board 14 and the adjacent legs 11 are rigidly united as a fixed structure and one of the end boards is joined permanently to said fixed structure so as to form in a unitary structure the structure of the head end of the cot and a part one of the side stringers, constituting a right-angled corner of said cot structure. As shown, the end board 16 forms part of the corner 18 at the right side of the head end, being joined to the head end board 14 through the medium of the leg 11 that is intermediate these parts.

In a similar way at the foot end of the cot the corner 19, diagonally opposite the corner 18, is composed of the foot board 15, the leg 11, and the end board 17, said corner 19 being also a rigid structure.

The corners of the bench intermediate the corners 18 and 19 are broken, and the parts composing the same are united indirectly through the medium of collapsible devices to be described.

Thus considering the left hand corner at the head end, the leg 11 at said corner constitutes the free end portion of the head end structure 21 that is composed of the head board 14 and the adjacent legs 11 and the free end 22 of the left end board 17 abuts thereagainst, and these parts may be suitably recessed, as shown at 23, for housing parts of the collapsible device mentioned.

Said collapsible device comprises a pair of similar board sections 24 of appreciable length and connected by their ends by means of suitable hinges 25, the one with the head end structure 21 and the other with the



free end 22 of the end board 17. A hinge 26 serves to interconnect the other opposed ends of said board sections 24.

Thus in the cot position, means are provided for a substantially straight stringer on the left side that is composed of the two board sections 24 that extend from the head end structure 21 towards the foot and that constitute the major portion of the length, and the end board 17 at the foot end.

In a similar way the corner 27 that is diagonally opposite the corner 20 is composed of the free end portion 28 of the right end board 16 in abutment with the opposed leg 11 at the right hand end portion of the foot board structure 29, and these parts are interconnected by a collapsible structure that is similar to that described with reference to the corner 20, the board sections 24 and hinges 25 and 26 being similar.

The only difference between the two stringer or side board structures is that the end boards and collapsible structures are reversed in their relative positions, the end board 16 on the right side being at the head end and the collapsible structure at the right side is connected directly to the foot board structure 29.

In the case of the section hinges 26, these are located on the outer faces of the sections 24 that are connected thereby when the device is in extended position, and I provide on the opposite inner face of each stringer structure a reinforcing latch 30 of strap iron that bridges the gap or junction at the abutting ends of the section boards 24 and helps in holding the parts relatively rigid.

The cot proper or supporting bed 31 is rigidly secured to the head end structure 21 in a proper manner, as by means of a metal strip or cleat 32 and suitable securing devices is provided with means for supporting the foot end portion that permit of readily connecting and disconnecting the parts, as will be described, and is made of a form that is adapted to be rolled up from the foot towards the head, as by the use of a cross-bar 33 at the foot as a core.

The bed 31 shown is made up as a spring bed or mattress of a plurality of sections of fabric that are interconnected by means of suitable sets of coil springs 34, and the cross-bar 33 is housed in a hem or loop 35 in the foot end section 36. Said foot end section 36 is relatively short. The section 37 at the head end may, however, be still shorter, as shown. The third and intermediate section 38 is relatively long and extends the major portion of the length of the structure of the bed 31.

For cooperating with the hook ends 39 of the springs 34 there are provided in the fabric diminutive folds or loops 40 in which are housed in each case a cross-rod 41 of

metal for distributing the strain of the springs.

The foot cross-bar 33 is utilized for effecting the connection for the bed 31 at the foot end by means of a laterally directed stud 42, which preferably is a headed stud, as shown, and which projects laterally from the end thereof, there being one such stud 42 at each end.

As a detail, the stud 42 is mounted on a metal bracket 43 that is secured in any proper manner on the cross-bar 33.

Also, said stud 42 is set in off-set relation to the center of said cross-bar 33, so as to be nearer to one of the side edges 44 than the other, as shown, so that the bar can be turned one way or the other to effect an appreciable change in the effective length of the cot or bed 31 and thereby can change the tension or stretch of the bed structure.

The stud 42 is adapted to make operative engagement with a suitable notch 45 in the upper edge portion of a suitable strip of iron that is in registration therewith, said strip, as shown, being in the form of a lever 46 that operates as a strut, being subject to compression when in position for use as well as transverse strain, and being pivotally supported for permitting of being shifted when the parts are brought to the closed position.

Thus the pivotal connection 47 for the lever 46 is provided at the head end on the inner face of the opposed board section 24 so that it is adapted to be swung either towards the foot end for the active position or towards the head end for the idle position. In either case a post that serves as a stop is provided to limit the swinging movement and support the free end portion. Thus at the foot end is the inwardly directed stop 48, supported by the side stringer structure, and at the head end is the stop 49.

The active stop 48 at the foot end is placed so that in assembling the stud 42 is brought below the line of centers as determined by the pivotal connection 47 and the two end supports for the bed 31, thus permitting the structure of the same being subjected to longitudinal tension when in the assembled position. This condition involves a tendency to hold the parts in the assembled relation and to resist any action that would have the effect of changing and disturbing such assembled relation.

In the closed position the board sections 24 are folded together and the bed 31 is for the most part rolled up on the cross-bar 33, and these parts are housed within the box-like structure 10, there being ample room for receiving and entirely enclosing the same, so as to be invisible when the piano-bench is set up in the ordinary manner for use.



I claim as my invention:—

1. A piano-bench and cot combination comprising in the closed position a box-like structure of rectangular form that is supported by a set of legs, said structure comprising extensions of said legs at the corners, side boards extending along the longer sides, and end boards at the shorter sides, the side boards being connected by their ends with the opposed legs, the end boards being individually connected by one end to diagonally disposed legs and having the free end opposed to the adjacent leg and separated therefrom by a broken joint, said broken joints being bridged in each case by a collapsible side rail section, and said rail sec-

tions being each provided with a hinged strut for connection with a cross-rail on a bed bottom.

2. In a piano-bench and cot combination, a collapsible frame structure and a filler in the form of a bed structure, one end of said filler being fixedly secured to said frame structure, the other end of said filler having a fold, a cross-bar positioned in said fold, and means for connecting the ends of said bar with said frame structure, and said bar being of rectangular form of cross-section and having the connecting means at the ends positioned eccentrically with reference to the axis of the bar.

OSCAR CHARLES JOHNSON.