

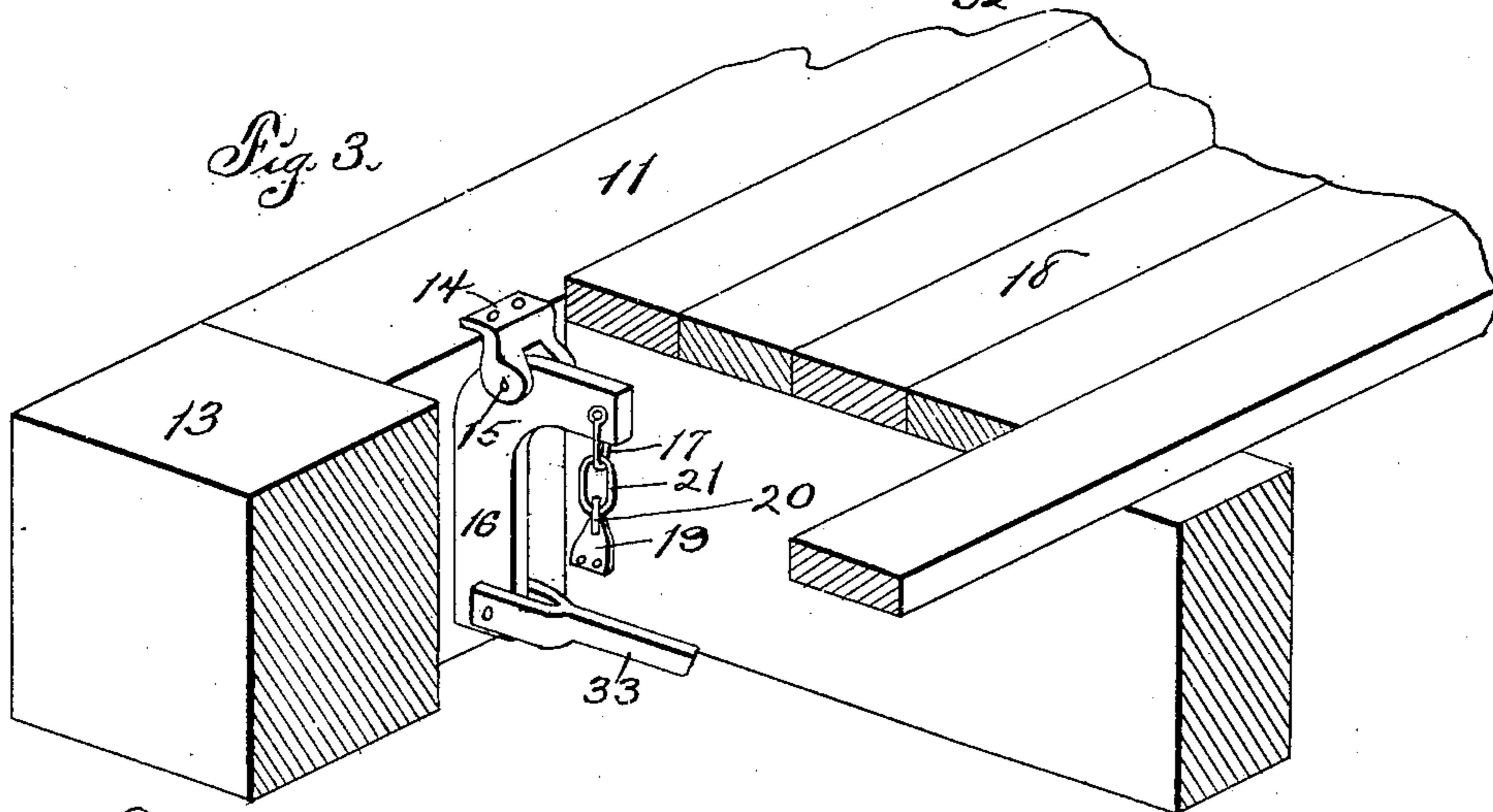
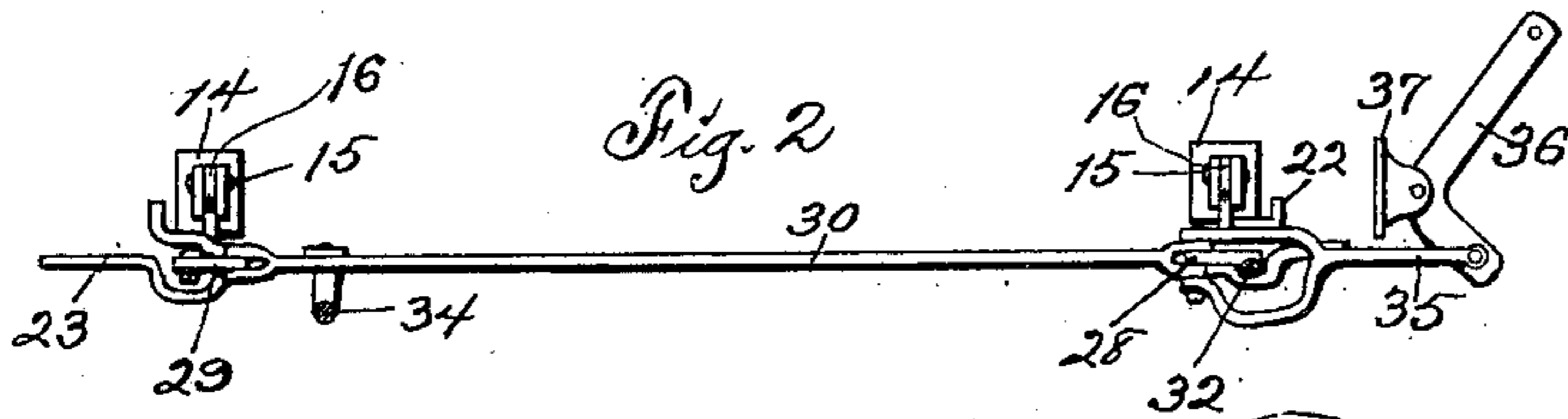
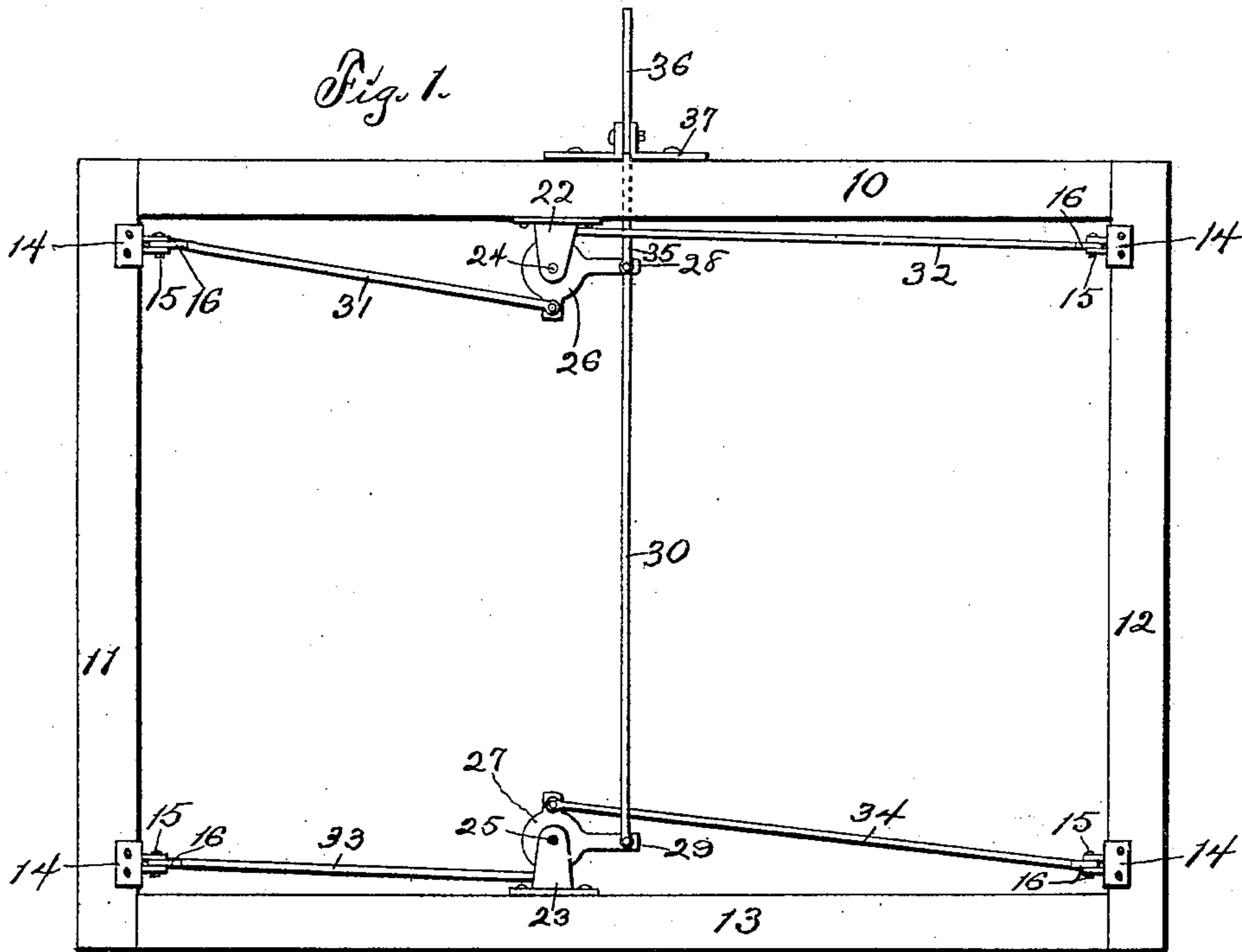
No. 644,427.

Patented Feb. 27, 1900.

J. W. HICKMAN.
PLATFORM SCALE.

(Application filed May 29, 1899.)

(No Model.)



Witnesses:

Q. R. R.
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Inventor:

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UNITED STATES PATENT OFFICE.

JAMES W. HICKMAN, OF CLEARFIELD, IOWA.

PLATFORM-SCALE.

SPECIFICATION forming part of Letters Patent No. 644,427, dated February 27, 1900.

Application filed May 29, 1899. Serial No. 718,657. (No model.)

To all whom it may concern:

Be it known that I, JAMES W. HICKMAN, a citizen of the United States, residing at Clearfield, in the county of Taylor and State of Iowa, have invented a new and useful Platform-Scale, of which the following is a specification.

The object of this invention is to provide improved means for connecting a scale-platform with a scale-beam, whereby a weight applied at any point on the platform will depress said platform and immediately communicate with and operate the scale-beam.

My invention consists in the construction, arrangement, and combination of elements hereinafter set forth, pointed out in my claims, and illustrated by the accompanying drawings, in which—

Figure 1 is a plan illustrating the frame and mechanism, the platform being removed. Fig. 2 is a cross-section of the mechanism. Fig. 3 is a detail perspective illustrating the means employed to suspend each corner of the platform.

In the construction of the device as shown the numeral 10 designates one side beam, 11 12 the end beams, and 13 the other side beam, of the frame of a platform-scale of common form.

Brackets 14 are mounted on and extend inwardly from the end beams 11 12 and are formed with ears, which ears are spaced apart and connected by horizontally-positioned knife-edged pins 15.

Bell-crank levers 16 are mounted for rotation on the knife-edged pins 15, and links or clevises 17 depend from the extremities of the horizontal arms of said levers. A platform 18 is mounted horizontally between and free from the frame-beams, and plates 19 are fixed to and project laterally from the corners of said platform. Knife-edged hooks 20 are formed on or fixed to and extend upwardly and outwardly from the plates 19 and traverse and rest in the lower ends of links 21, suspended from the links or clevises 17.

Brackets 22 23 are mounted on and project inwardly from the side beams 10 13 of the frame, as shown in Fig. 1, and pins 24 25 are vertically located in said brackets. Three-armed disks 26 27 are mounted for rotation on the pins 24 25 in horizontal planes. Two

arms 28 29 project from the disks 26 27 in the same direction and parallel with each other and are connected by a rod 30 in such a manner that any movement of oscillation of one disk is directly communicated to the other. Arms on the disks 26 27, concealed by the horizontal parts of the brackets 22 and 23 in Fig. 1, project outwardly on diametrically-opposite sides at right angles to the arms 28 29 and are connected, as shown in Fig. 1, by rods 31 32 33 34 to the lower ends of the vertical arms of the bell-crank levers 16. The vertical arms of the bell-crank levers are approximately twice the length of the horizontal arms of said levers, and the lateral arms of the disks 26 27 are approximately one-half the length of the arms 28 29. The arm 28 is connected by a rod 35 to the short vertical arm of a bell-crank lever 36, fulcrumed on a suitable support 37, located in any convenient position. The long arm of the bell-crank lever 36 is connected by a vertical rod of common form (not shown) to a scale-beam. The rod 35 may be made of any desired length, thus providing for the location of the scale-beam at any desired distance from the platform. The relative lengths of the arms of the levers and disks are so proportioned as to reduce the movement to any desired degree, thus compensating for the difference between the actual weight on the platform and the test-weight or poise on the scale-beam.

It is apparent that any movement of descent of the platform 18 will be communicated through the plates 19, knife-edged hooks 20, links 21, links or clevises 17, bell-cranks 16, rods 31 32 33 34, disks 26 27, arms 28 29, rods 30 35, and bell-crank 36 to the vertical rod and scale-beam. The pins 15 and upper ends of the links or clevises 17 may alike be formed as knife-edges.

It is obvious that by means of the three-armed disks 26 and 27, mounted centrally relative to the parallel sides of the frame, all of the rods that are subjected to weight on the platform are advantageously connected for transmitting pressure to a scale-beam that may be located at any desired distance from the platform.

I claim as my invention—

1. In a platform-scale, the brackets 22 and

23 fixed to the central portion of parallel side
pieces of a frame, three-armed disks 26 and
27 mounted in said brackets, bell-crank le-
vers suspended in the corners of the frame,
5 rods connected with said bell-crank levers
and the three-armed disks, and a rod connect-
ing the long arms of the said disks, arranged
and combined as shown and described to op-
erate in the manner set forth.

10 2. The frame, the brackets mounted there-
on, the bell-cranks mounted in the brackets,
the platform mounted in the frame, the plates
on the platform, the knife-edges on the plate
the links depending from the horizontal arms
of the bell-cranks and suspending said knife- 15
edges, brackets 22, 23, mounted on the frame,
three-armed disks mounted in the brackets
22, 23, rods connecting arms of said disks to
vertical arms of the bell-cranks, a rod con-
necting said disks, a bell-crank 36 arranged 20
for connection to a scale-beam and a rod 35
of indeterminate length connecting one of
the disks with the bell-crank 36.

J. W. HICKMAN.

Witnesses:

W. M. LONG,
J. F. LOVITT.