

No. 731,309.

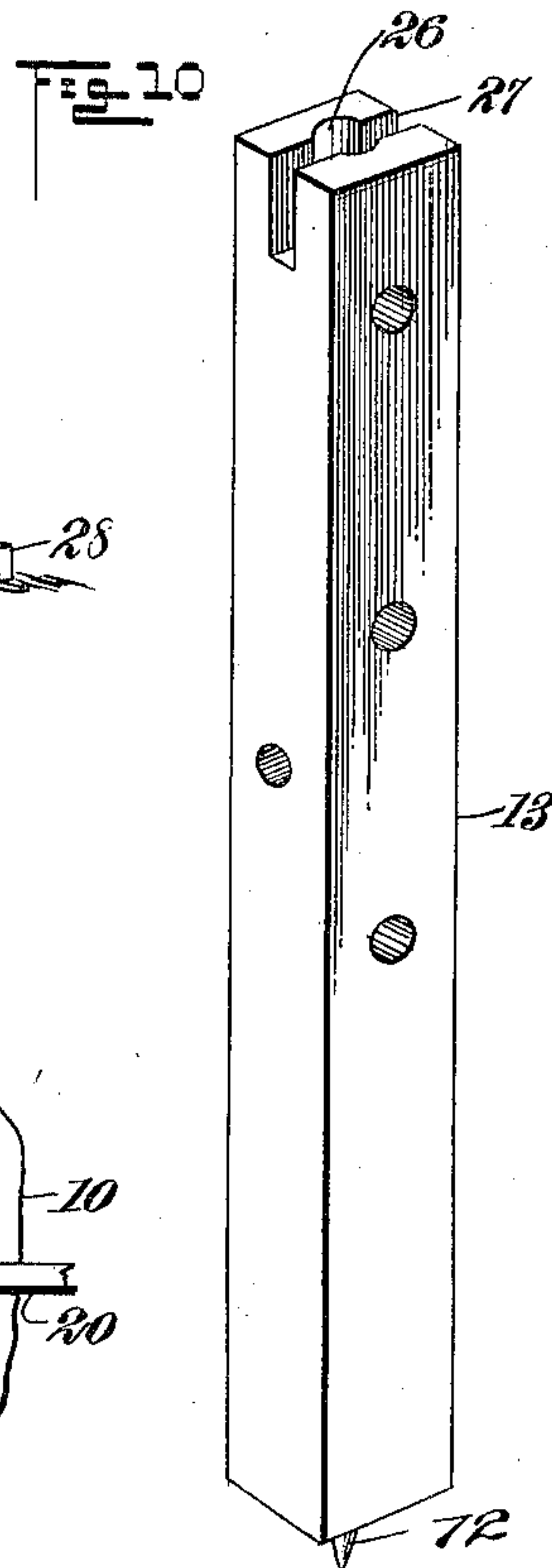
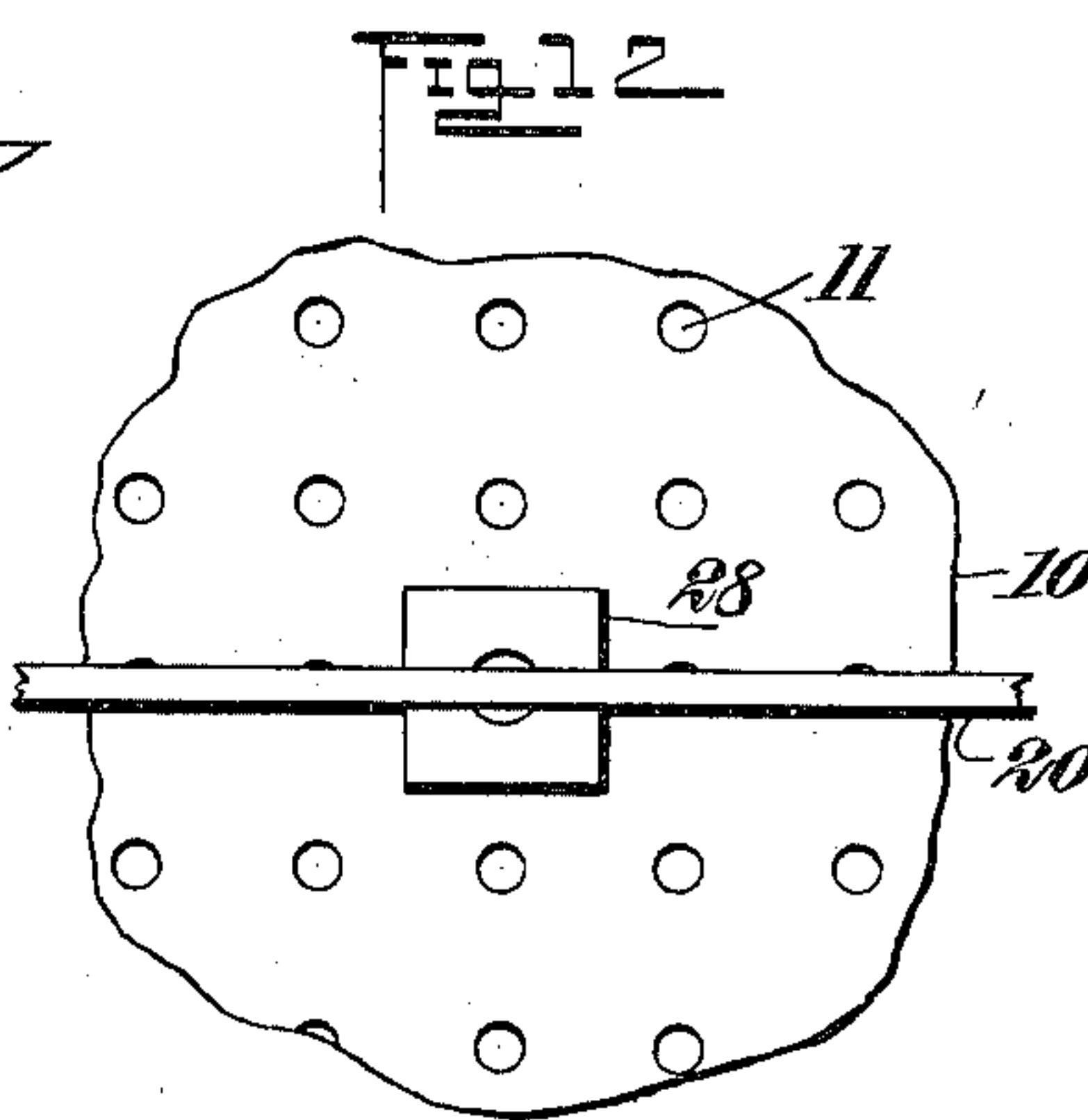
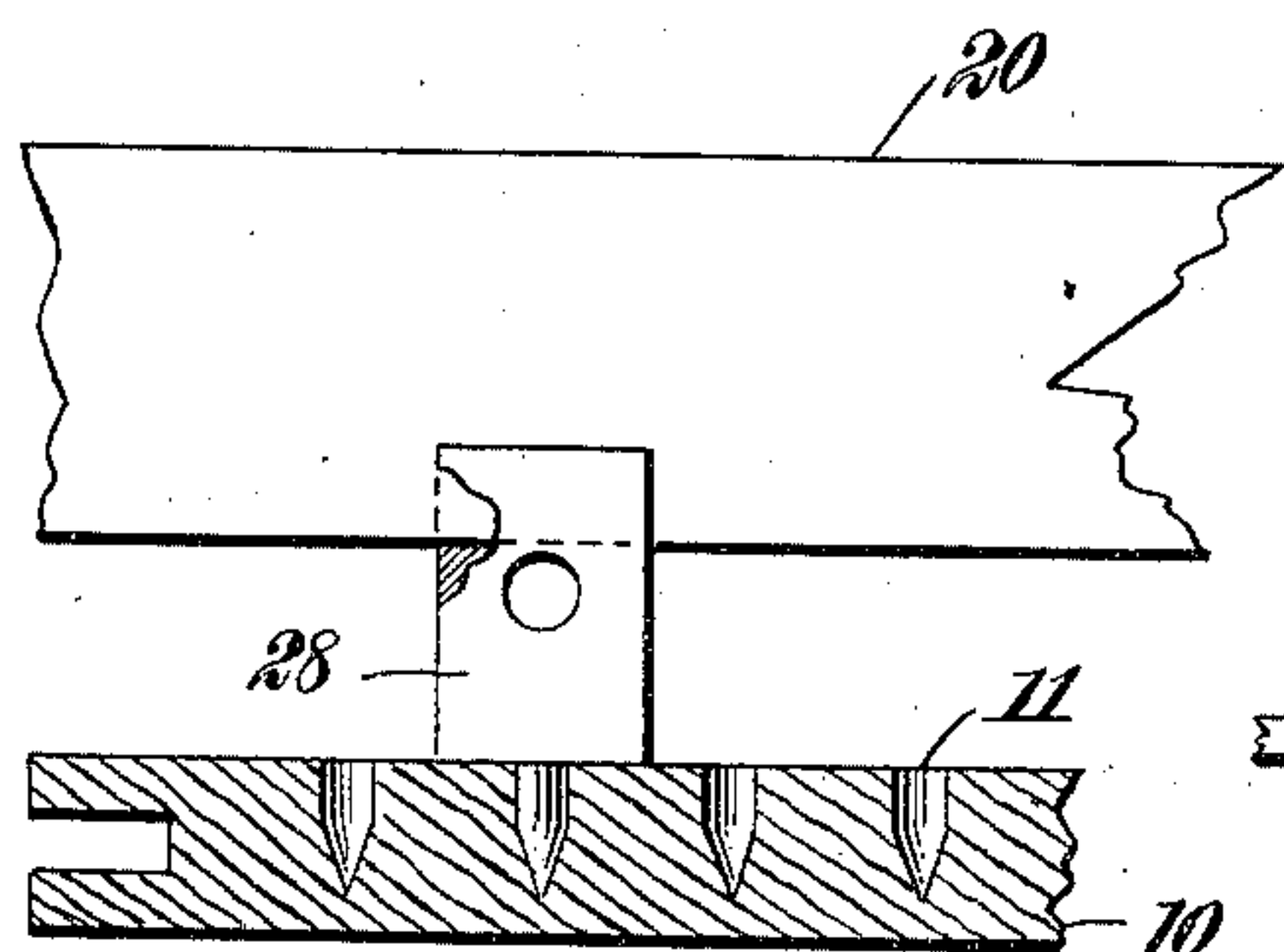
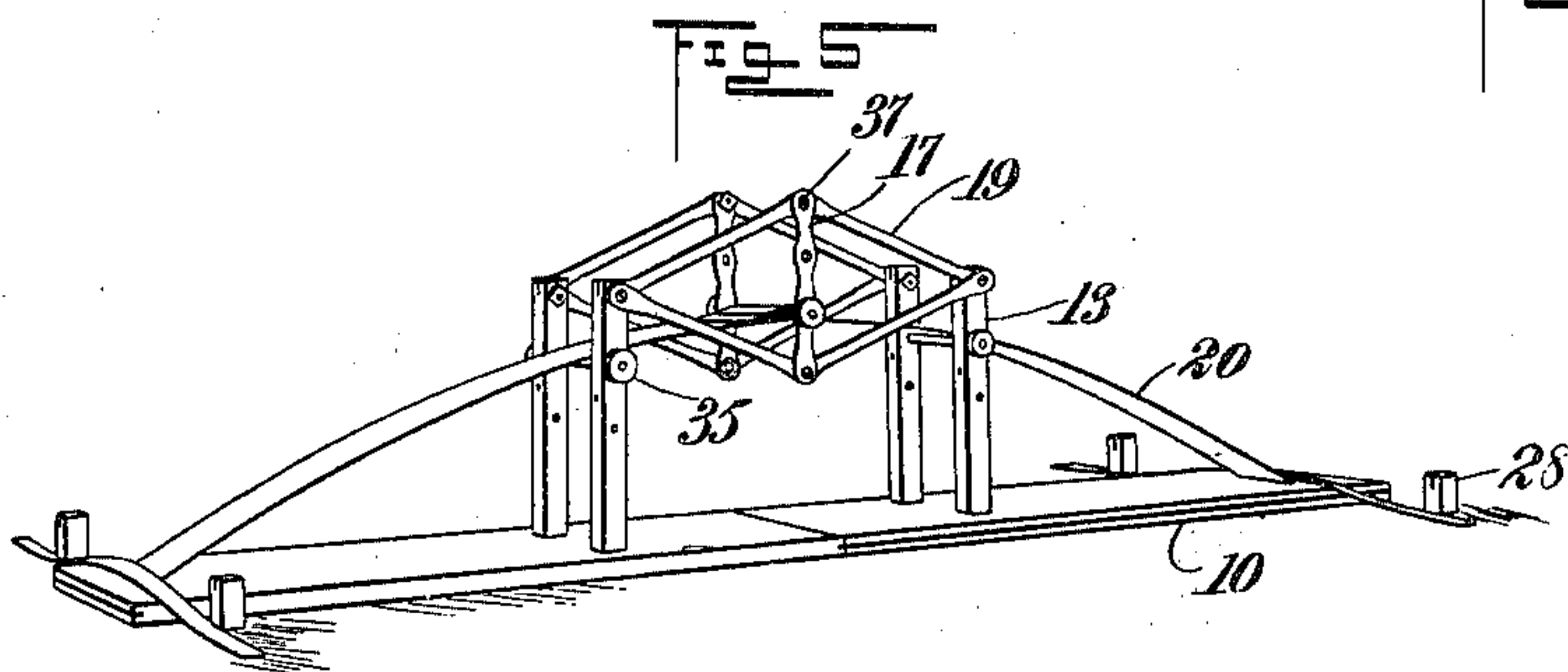
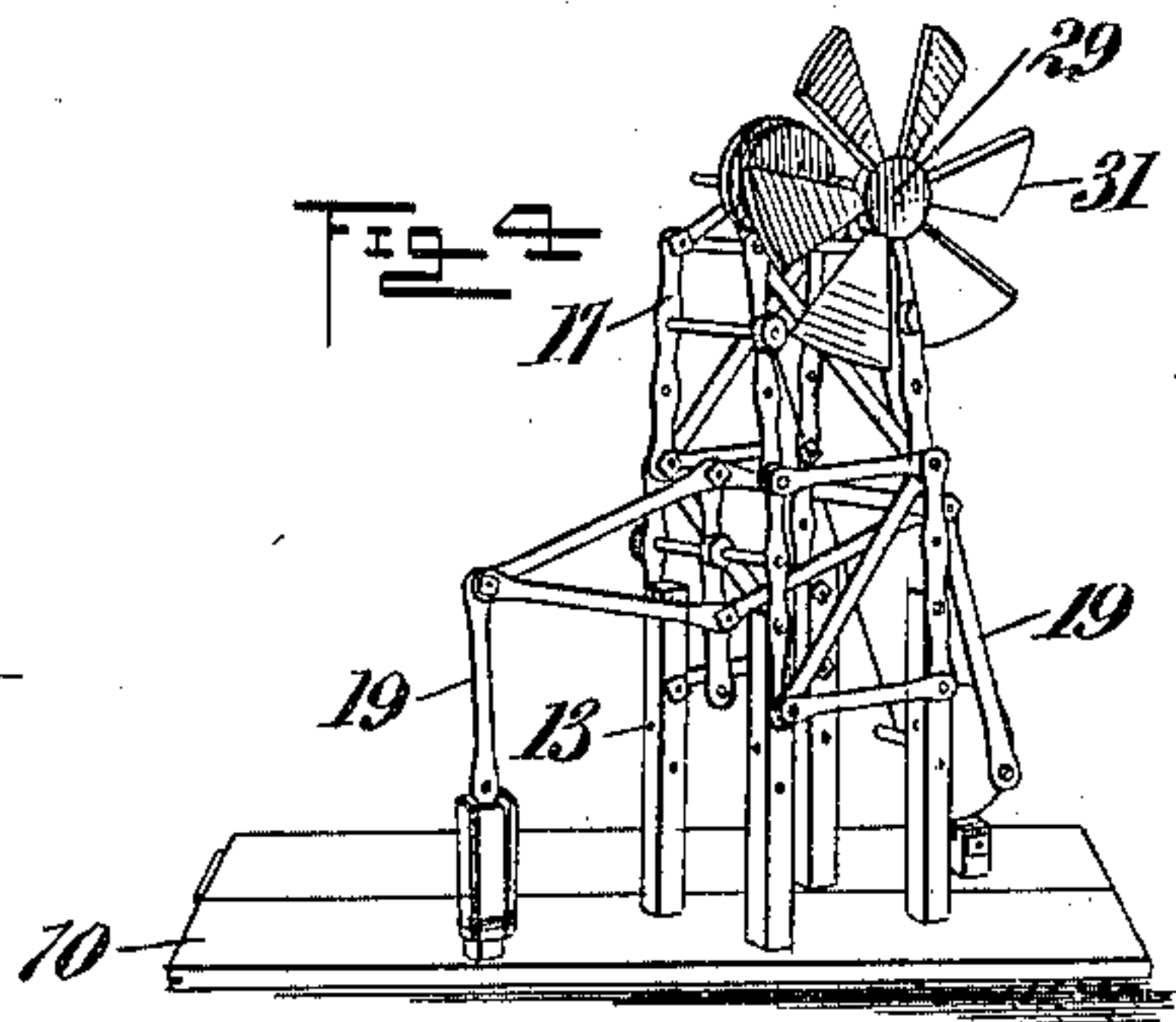
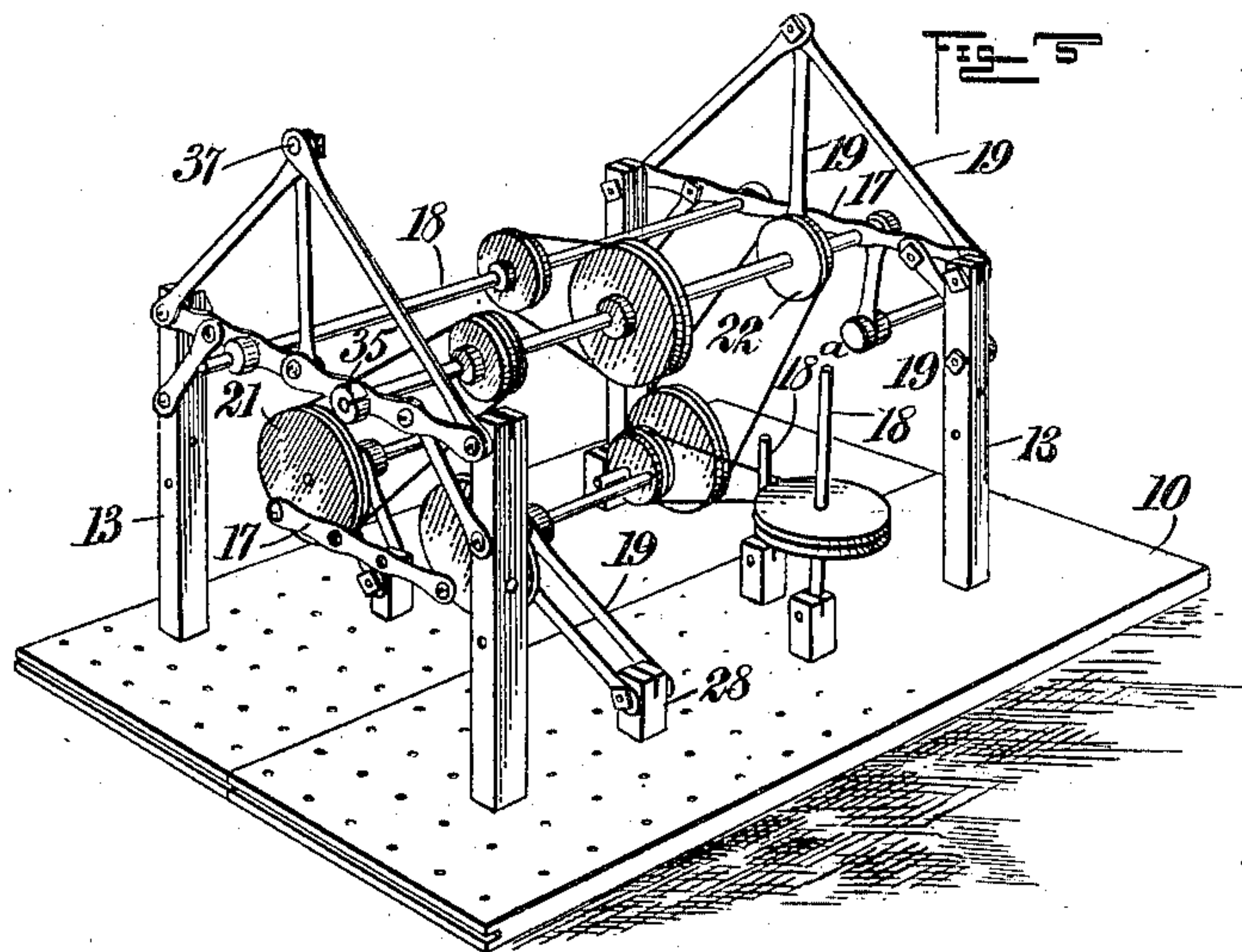
PATENTED JUNE 16, 1903.

W. D. KILBOURN.
BUILDING BLOCKS.

APPLICATION FILED SEPT. 25, 1902.

NO MODEL.

4 SHEETS—SHEET 2.



WITNESSES:

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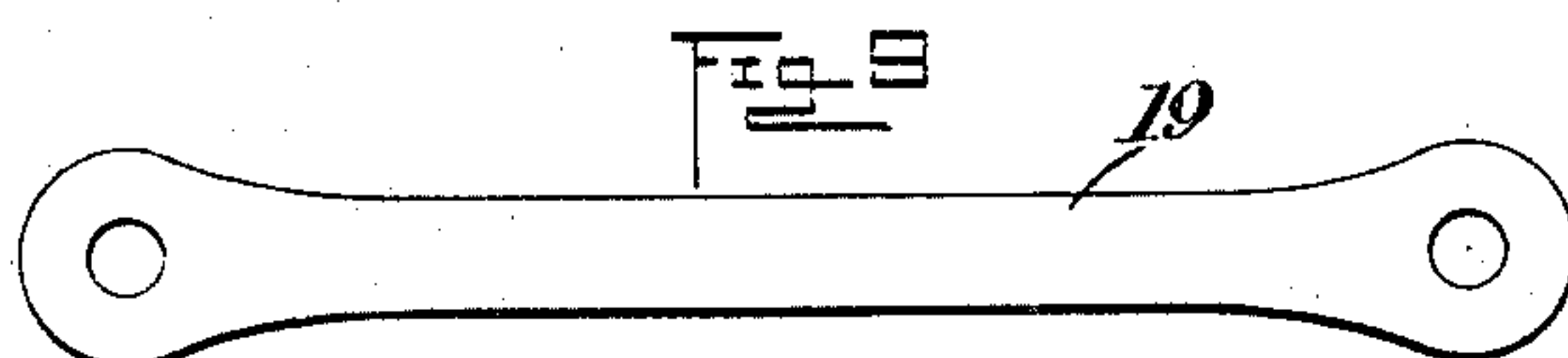
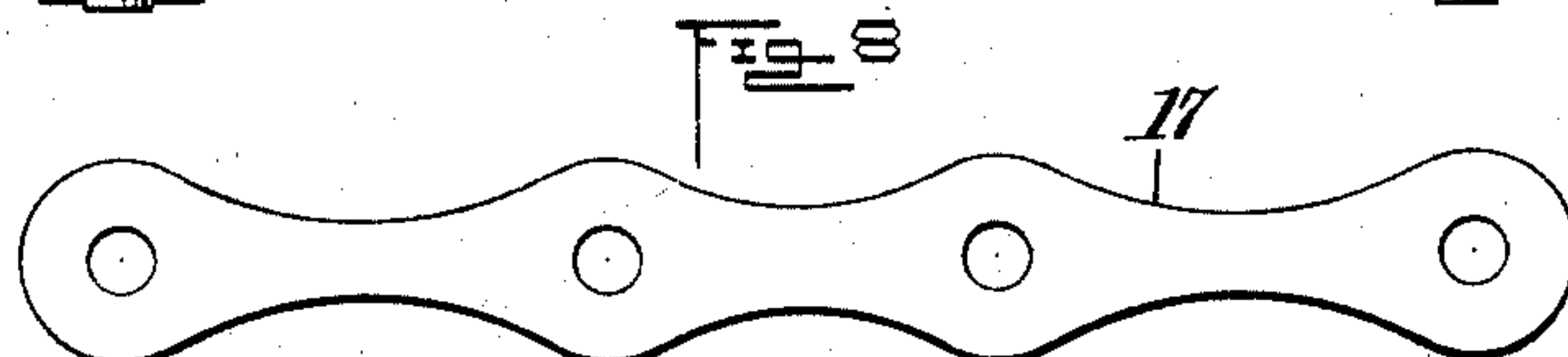
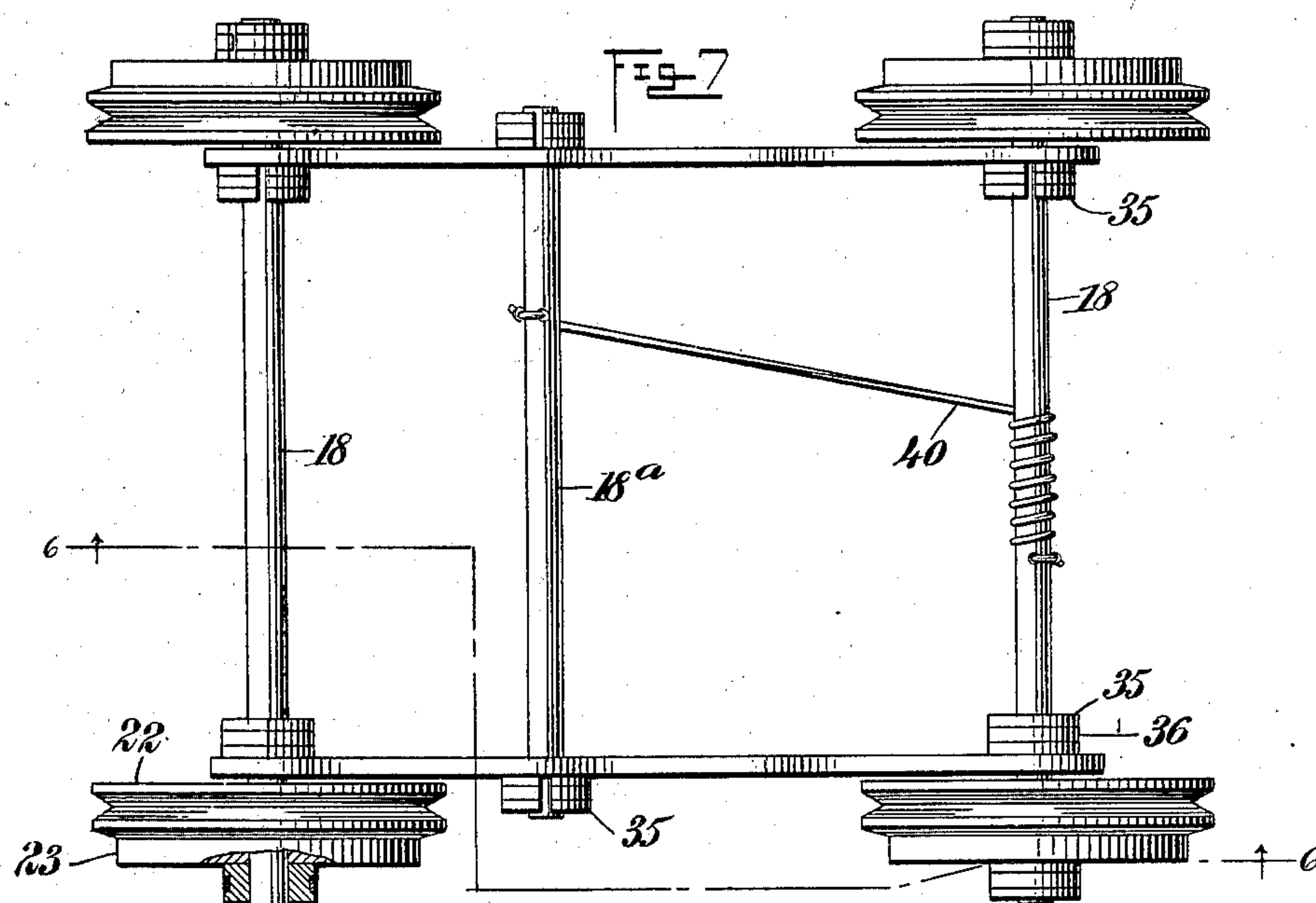
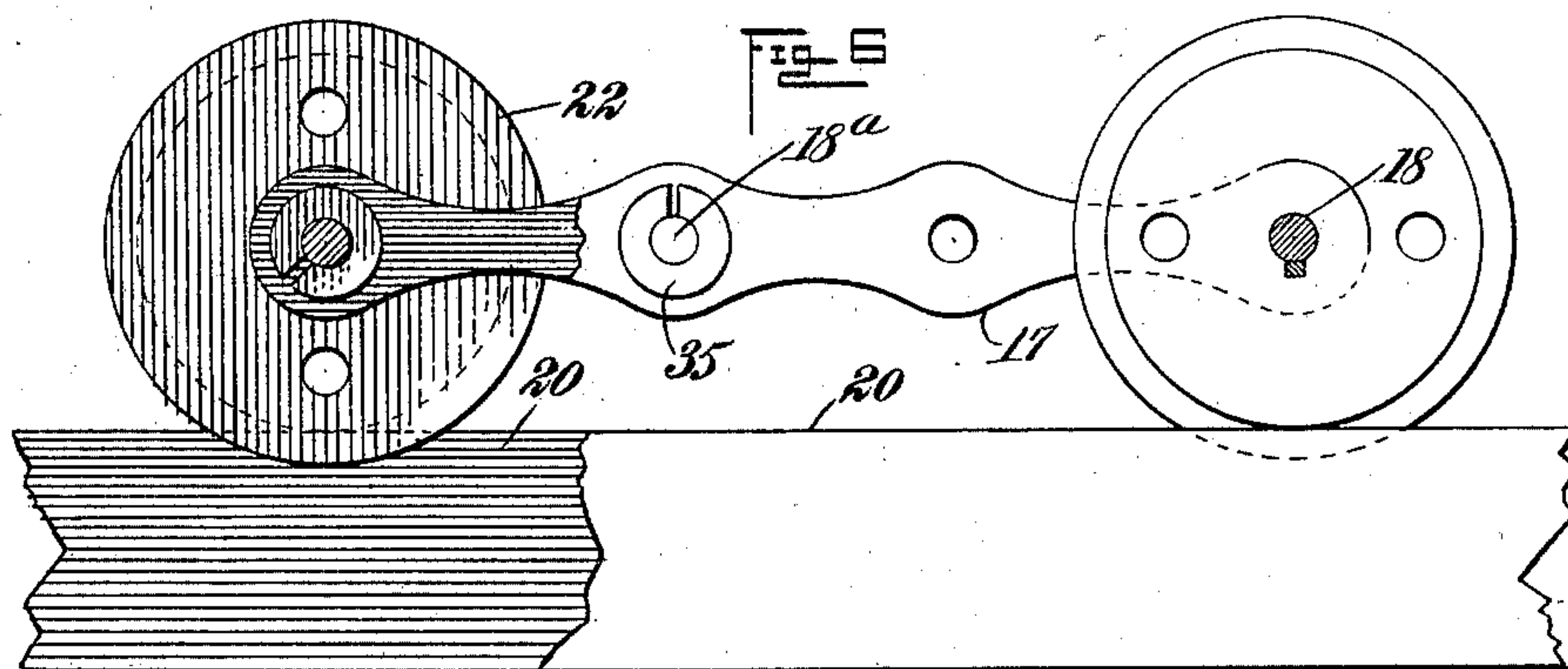
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4 SHEETS—SHEET 3.



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THE MORRIS PETERS CO. PHOTO-LITHO. WASHINGTON, D. C.

No. 731,309.

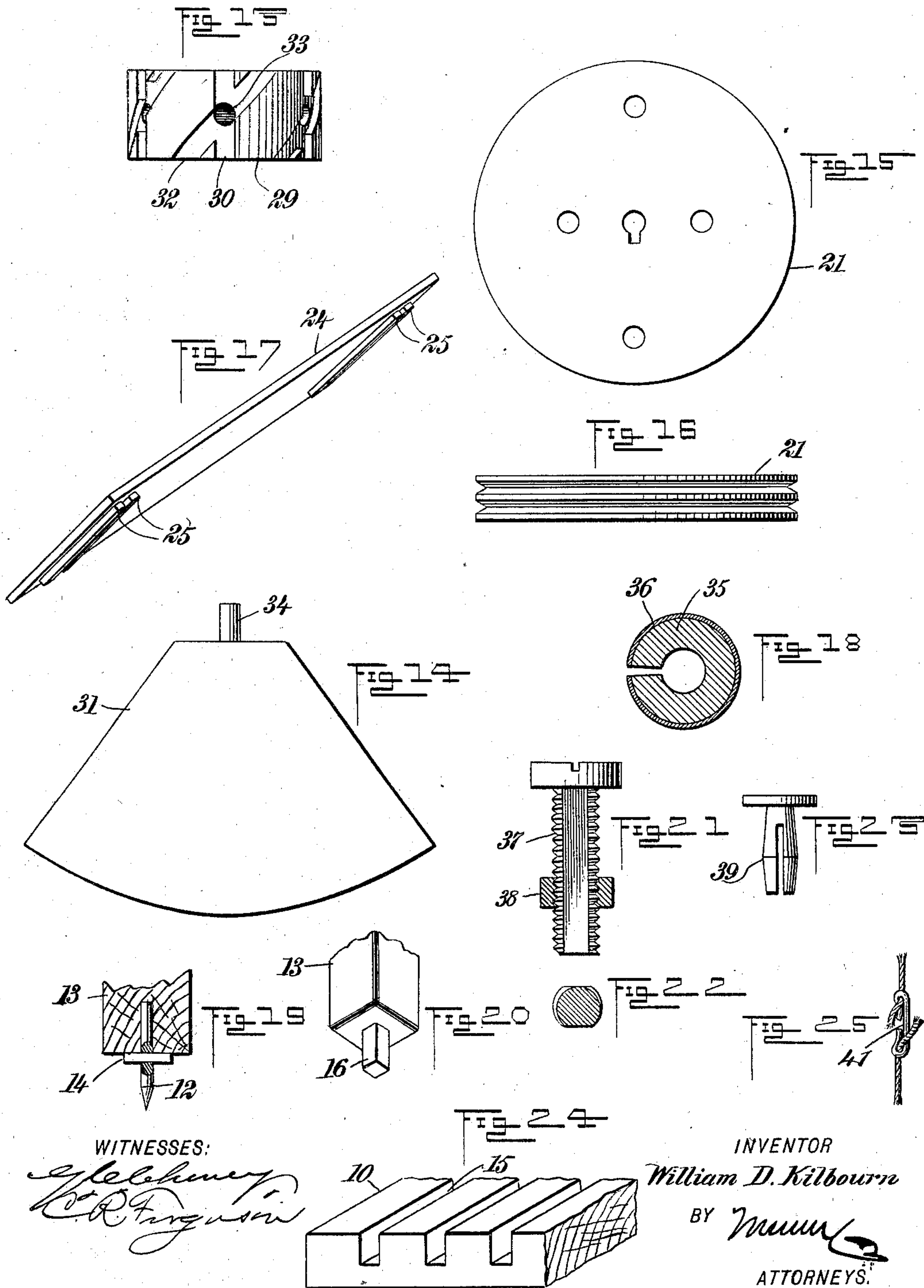
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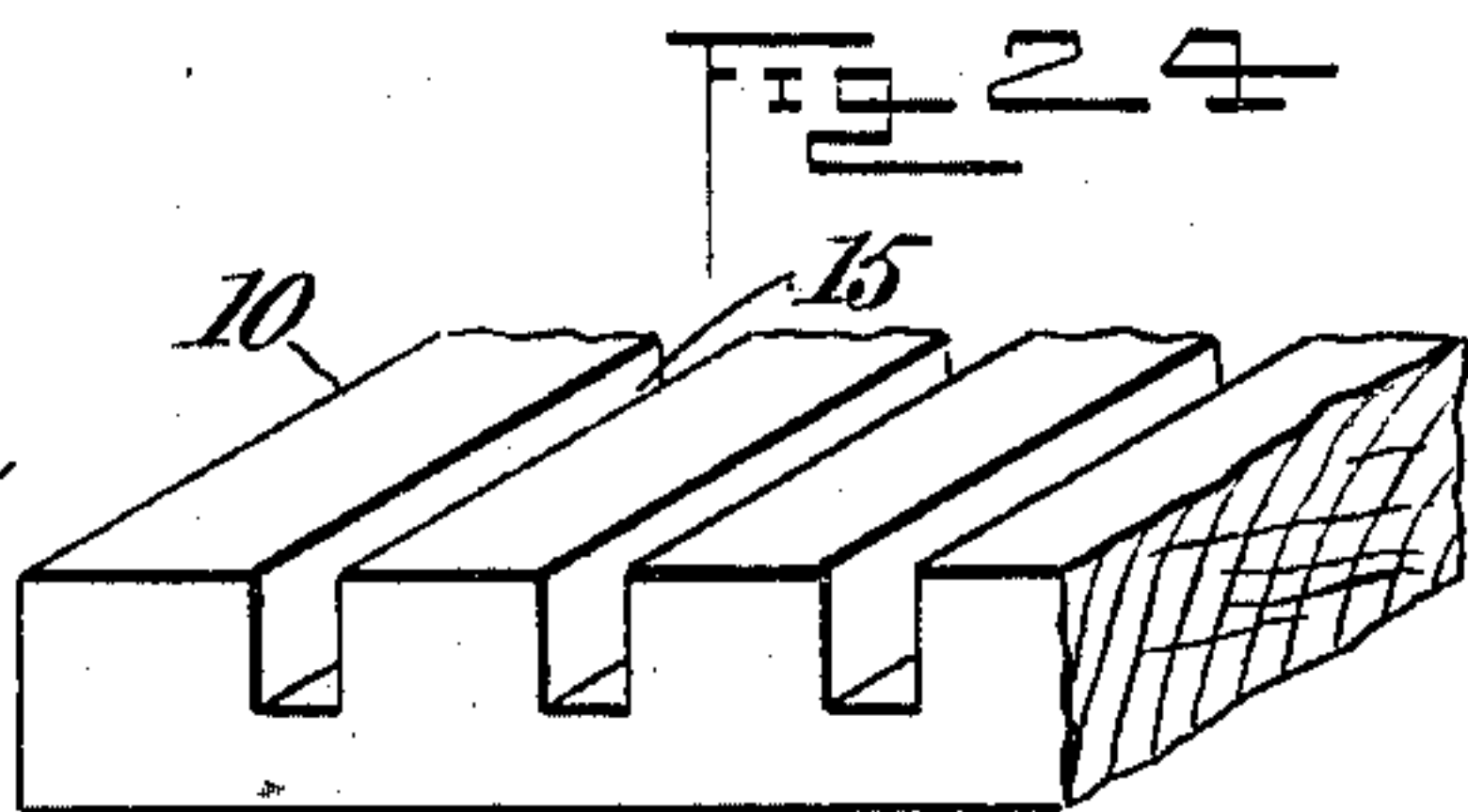
NO MODEL.

4 SHEETS—SHEET 4.



WITNESSES:

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INVENTOR

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UNITED STATES PATENT OFFICE.

WILLIAM DOUGLAS KILBOURN, OF PUEBLO, COLORADO, ASSIGNOR OF ONE-TENTH TO SOPHIA ELIZABETH KILBOURN, OF MIDDLETOWN, CONNECTICUT.

BUILDING-BLOCKS.

SPECIFICATION forming part of Letters Patent No. 731,309, dated June 16, 1903.

Application filed September 25, 1902. Serial No. 124,763. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM DOUGLAS KILBOURN, a citizen of the United States, and a resident of Pueblo, in the county of Pueblo and State of Colorado, have invented new and useful Improvements in Building-Blocks, of which the following is a full, clear, and exact description.

This invention relates to improvements in building-blocks, the object being to provide a series of blocks of various shapes by means of which a great variety of structural devices in miniature may be built up, thus not merely providing amusement as a toy, but serving to develop the mechanical ideas of a child or person.

I will describe building-blocks embodying my invention and then point out the novel features in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is an elevation representing a mill built up from various forms of blocks embodying my invention. Fig. 2 is a plan view thereof with the roof removed. Fig. 3 represents a machine-shop formed of the blocks. Fig. 4 indicates a pumping power; Fig. 5, a bridge. Fig. 6 is a side view, partly in section, on the line 6 6 of Fig. 7, indicating a car-truck. Fig. 7 is a plan view thereof. Fig. 8 is a plan view of one of the blocks in the form of a link. Fig. 9 is a plan view of another block in the form of a link. Fig. 10 shows another block in the form of a post or standard. Fig. 11 represents portions of other blocks. Fig. 12 is a plan view thereof. Fig. 13 indicates a hub-shaped block belonging to the set. Fig. 14 indicates a vane or paddle shaped block. Fig. 15 is a face view of a pulley-shaped block. Fig. 16 is an edge view thereof. Fig. 17 shows another form of block. Fig. 18 is a sectional view showing a washer-shaped block. Figs. 19 and 20 are details showing the lower ends of post or standard blocks. Fig. 21 indicates a fastening-bolt employed. Fig. 22 is a cross-section thereof. Fig. 23 indicates another form of bolt. Fig. 24 shows a portion of a base-block of modified construction, and Fig.

25 is a detail view showing a band or belt fastener employed.

Referring to the drawings, 10 designates the base or flooring block, and this base or flooring block is provided around its edges with grooves and tongues, so that another similar block may be engaged therewith when it is desired to enlarge the flooring-space. The block 10 is provided with perforations 11 to receive pins 12 on the lower ends of posts or standards 13. To prevent the pins 12 from being forced into the blocks forming the posts or standards, collars 14 are secured to the pins and engage against the end of the blocks. The floor-block shown in Fig. 24 is provided with parallel channels 15, designed to receive angular pins or projections 16 on the modified form of the block shown in Fig. 20. Another block of the series is of elongated form, (indicated at 17.) This block is provided with a series of holes to receive the round blocks 18, which are designed to be employed in some instances as shaftings and in some instances as axles for car-wheels or the like. The link-shaped blocks 17 may be used for various purposes—such, for instance, as the framework of a pumping-power, string-pieces in a building, or the like. Another link-shaped block 19 is provided with openings at its ends for receiving shaftings or to receive fastening-bolts, and these blocks are made in various lengths. These blocks 19 may be employed as rafters for a roof in bridge construction and as crank-rods, &c.

Other blocks are made in the form of straight strips 20, which may be used as roofing, as railway-tracks, bridge-flooring, and the like. Other forms of blocks are in the shape of pulleys 21, having holes variously placed, in which bolts forming crank-pins may be placed, and these blocks 21 are shown as having two peripheral channels. Other wheel-formed blocks are indicated at 22. These blocks 22 have peripheral channels to receive a belt and also at one side have tread portions 23 when the wheels are to be used on a car-truck or the like.

Another form of block in the shape of a board is indicated at 24, which has at its ends pairs of cleats 25. This form of block

may also be used in the roofing of a building or in forming the body portions of cars, wagons, &c., and in various other constructions.

The posts 13, as will be seen in Fig. 10, are provided with variously-placed holes for receiving shaftings, brace-bars, or the like in the form of the blocks 18 or 18^a, the said blocks 18^a being somewhat shorter than the blocks 18. The post at its upper end is provided with a longitudinal bore 26 to receive the pin 12 of another post or to receive the end of one of the blocks 18 or 18^a. It is also provided at its upper end with a transverse cut 27 for receiving portions of other blocks. The set of blocks comprises other posts 28, which are very much shorter than the posts 13, and these short posts 28 are provided with holes and also with the transverse cut similar to the cut 27 to receive the edge of the board-shaped block 20, thus forming a support in railway-track construction.

Another series of the block is in the form of a hub 29, having transverse cuts 30 to receive the edges of blade-like blocks 31 when a water-wheel is to be formed. The block 29 is also provided with diagonal channels or slots 32 to receive said blocks 31 when said blocks 31 are to be used in the construction of a windmill. At the junction of the slots 30 and 32 is an opening 33 for receiving a pin 34 on the block 31.

Another form of block is in the shape of a washer 35, which is open at one side, so as to have yielding frictional engagement with a shafting or rod shaped block upon which it may be placed. The block 35 has a peripheral channel in which a split spring-ring 36 may be placed, which will prevent the breaking of the block 35 and also cause it to hold more tightly in engagement with the shaft or rod upon which it may be placed.

In the building up of a device it is obvious that the several connecting-blocks must be securely fastened together. For this purpose I may employ bolts 37 and nuts 38, the bolts being flattened on the opposite sides, or the form of block 39 shown in Fig. 23 may be employed. This block 39 is substantially in the form of a cotter—that is, is longitudinally slitted to form two spring yielding members—and these members are tapered in

about the center toward the ends. When a car-truck or similar rolling device is formed from the blocks, it may be propelled for a short distance by means of an elastic cord 40, which will be fastened at one end to the cross-bar 18^a and at the other end to an axle-shaped block around which it is wound.

In the drawings I have shown but very few of the devices that may be formed with the blocks. It is obvious that the number of devices that may be formed is practically unlimited. It is my intention to provide with each set of blocks charts or plans indicating the positions of blocks for various structures.

In Fig. 25 I have indicated a form of band-connecting link that may be employed. It consists of a piece of wire 41, having hook ends.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A set of building-blocks comprising elongated or link-shaped blocks having openings, post-shaped blocks with openings, pulley and wheel shaped blocks with openings and shafting or rod shaped blocks having projections for engaging in said openings.

2. A set of building-blocks comprising elongated or link-shaped blocks having openings, post-shaped blocks with openings, pulley and wheel shaped blocks with openings, shafting and rod shaped blocks having projections for engaging in said openings, hub-shaped blocks having transverse channels and diagonal channels and openings or holes at the junctions of the channels, paddle or vane shaped blocks having pins, washer-shaped blocks open at one side, and board-shaped blocks.

3. In a set of building-blocks a hub-shaped block having transverse channels and diagonal channels, and openings or holes at the junction of the channels, and paddle or vane shaped blocks having pins for engaging in said openings or holes.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM DOUGLAS KILBOURN.

Witnesses:

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E. H. WILKINS.