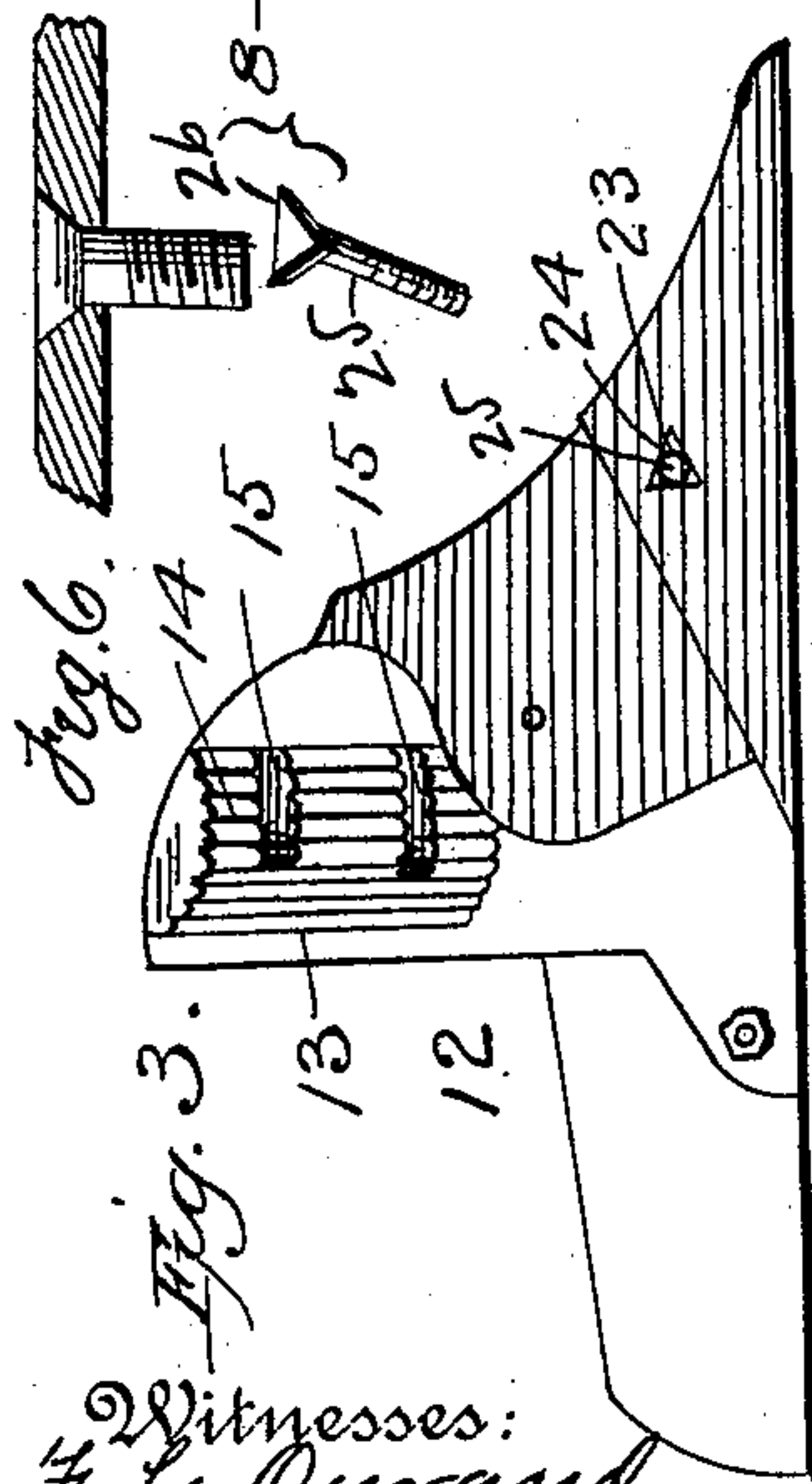
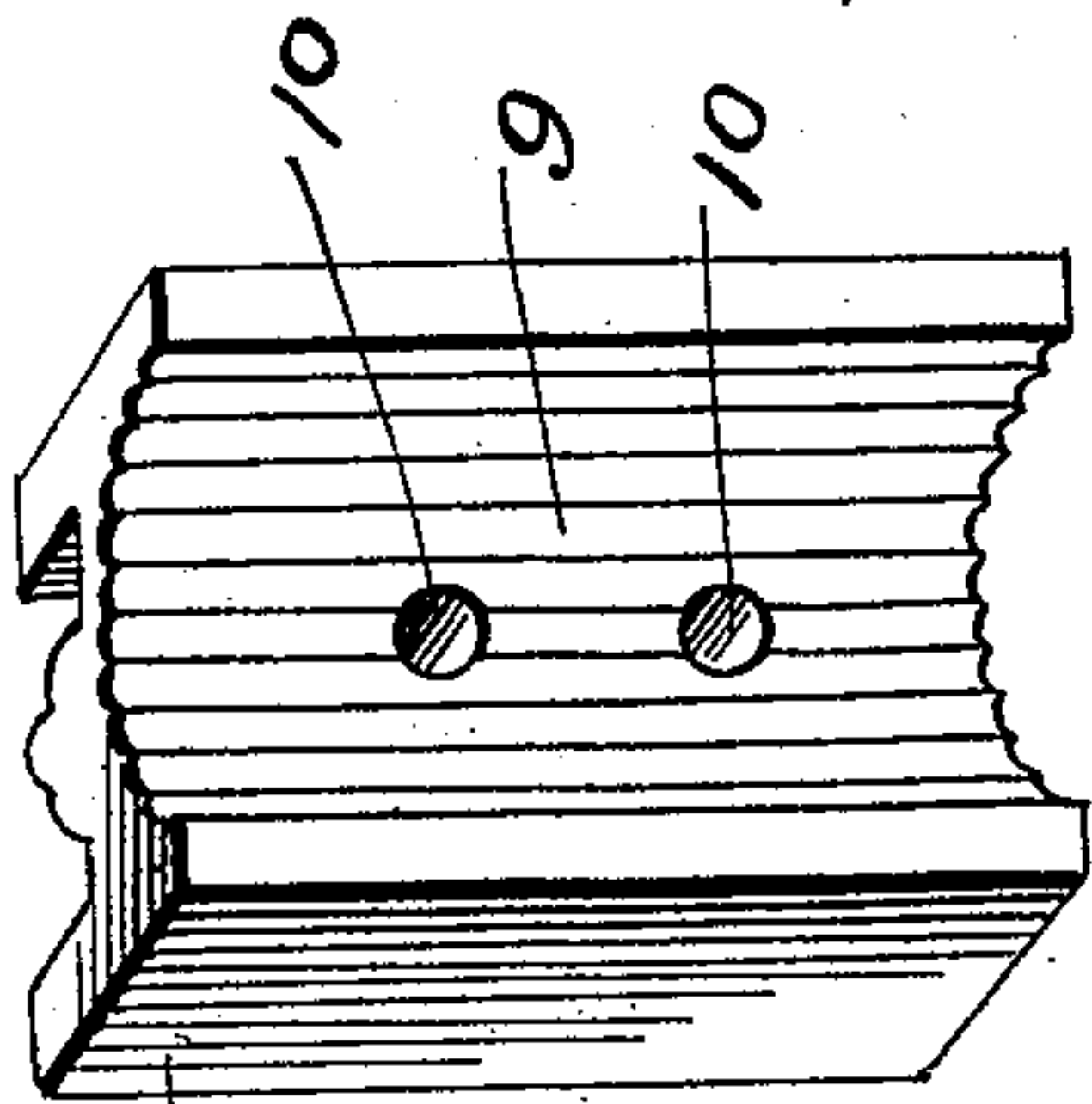
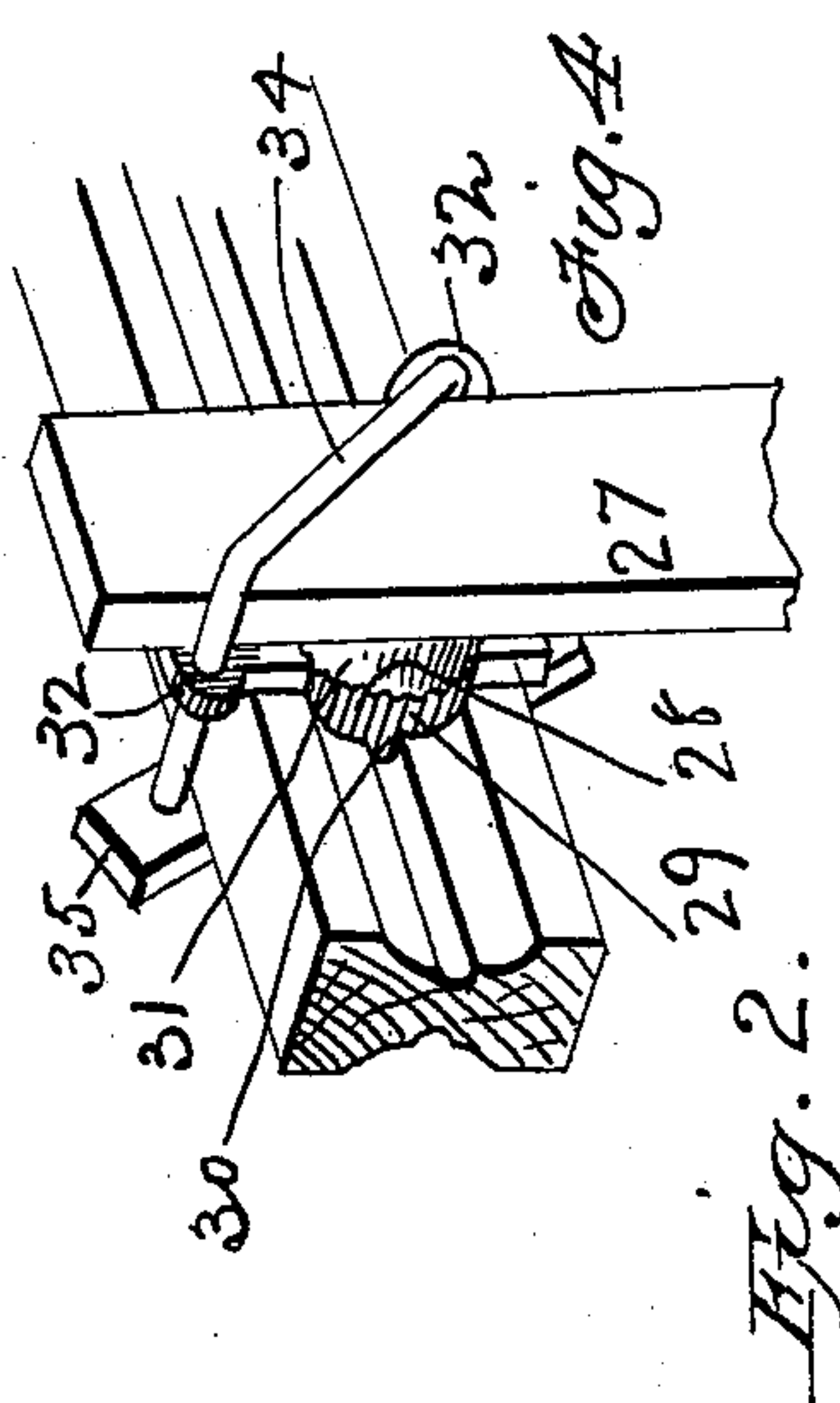


(No Model.)

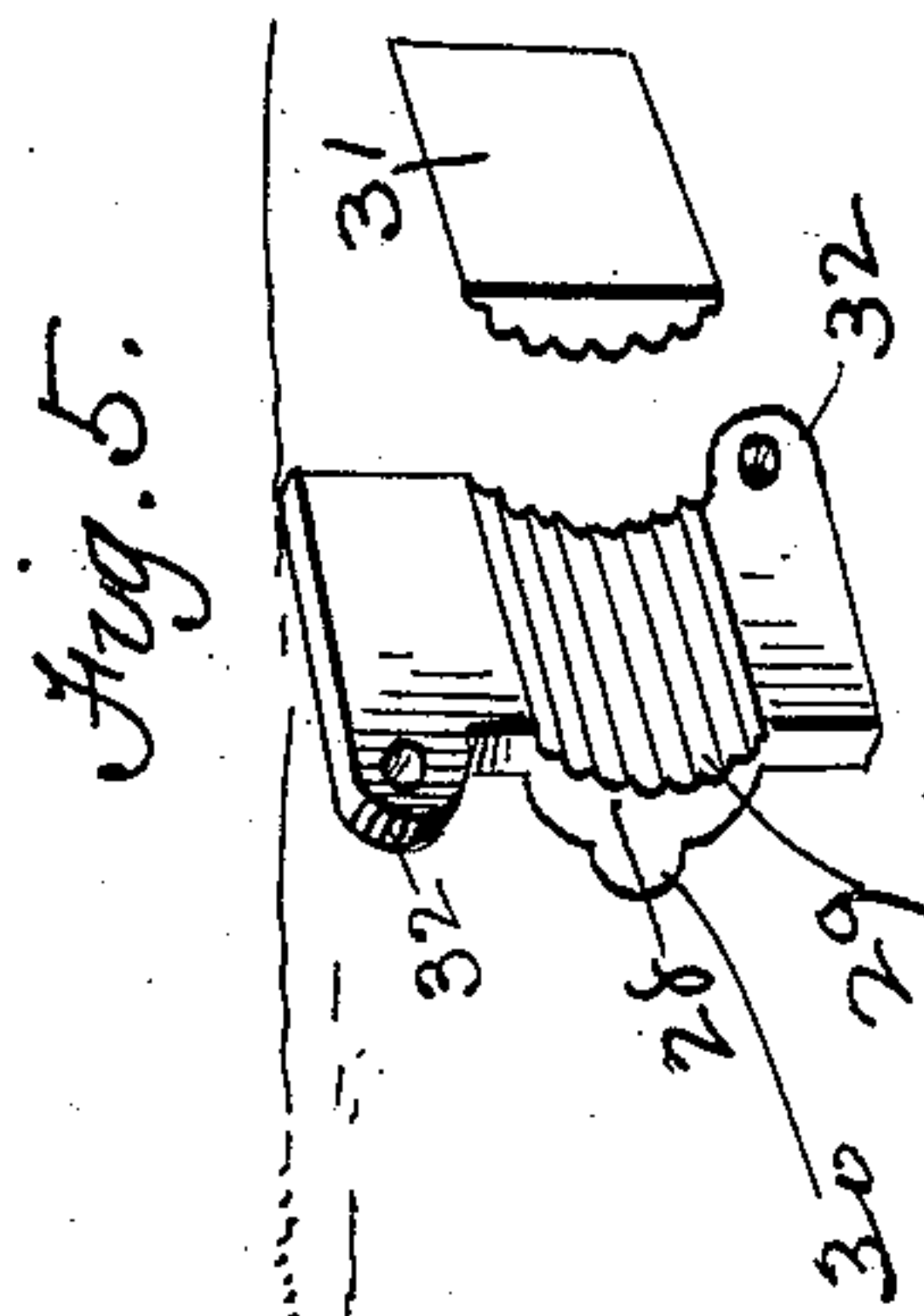
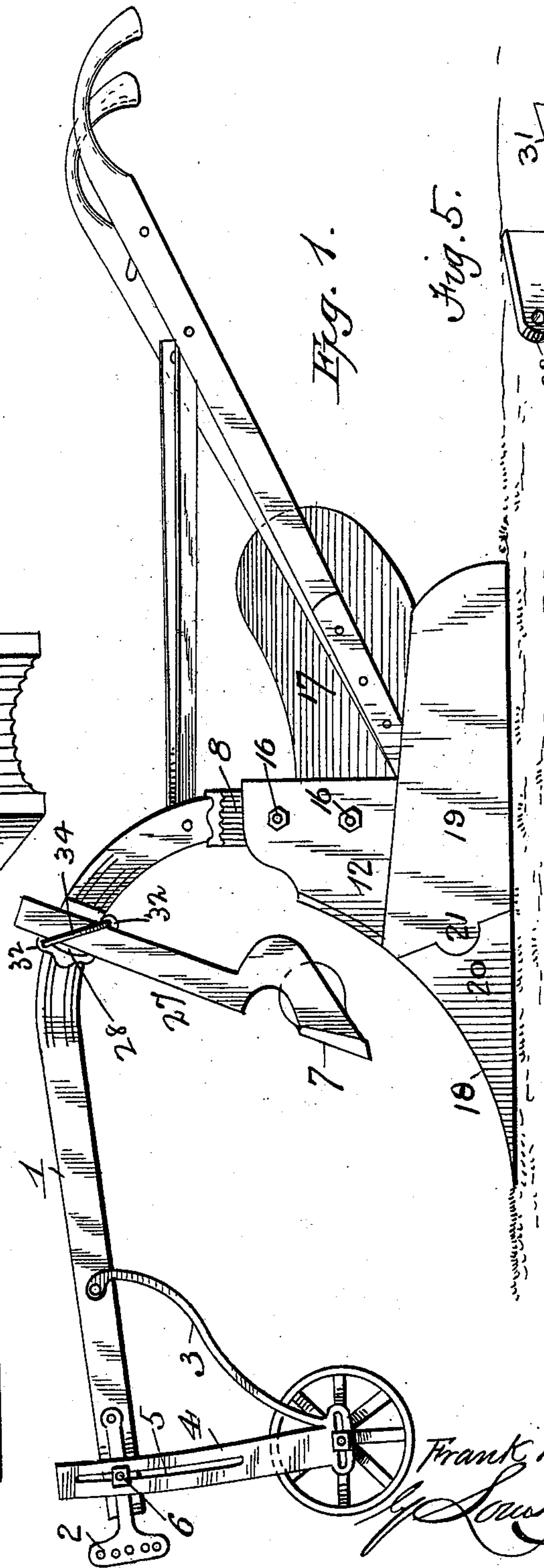
F. L. WOODWARD.  
PLOW.

No. 602,278.

Patented Apr. 12, 1898.



Witnesses:  
F. L. Curran  
J. L. Coombs



Inventor:  
Frank L. Woodward  
Louis R. Rogers & Co.  
Attorneys.



# UNITED STATES PATENT OFFICE.

FRANK L. WOODWARD, OF HUDSON, MICHIGAN.

## PLOW.

SPECIFICATION forming part of Letters Patent No. 602,278, dated April 12, 1898.

Application filed October 20, 1897. Serial No. 655,832. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK L. WOODWARD, a citizen of the United States, and a resident of Hudson, in the county of Lenawee and State of Michigan, have invented certain new and useful Improvements in Plows; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to  
10 which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to improvements in  
15 plows; and its object is to provide an improved construction of the same which shall possess superior advantages with respect to efficiency in use.

The invention consists in the novel construction and combination of parts herein-  
20 after fully described and claimed.

In the accompanying drawings, Figure 1 is a side elevation of a plow constructed in accordance with my invention. Figs. 2 and 3  
25 are detail views. Figs. 4 and 5 are detail perspective views of the means for connecting the jointer to the plow-beam. Fig. 6 is a detail view of the bolt with triangular head.

In the said drawings the reference-numeral  
30 1 designates the plow-beam, provided with a clevis 2 at the forward end and an adjustable bracket comprising the arm 3, pivoted to the plow-beam, and an arm 4, formed with an elongated slot 5, through which and also  
35 through the clevis side plates passes a bolt 6. By loosening this bolt the bracket and the guide-wheel journaled to the lower end thereof may be adjusted vertically. Secured to the beam in rear of said wheel standard or  
40 bracket is a jointer or colter 7. The rear end of said beam is curved downwardly and provided at its lower end with a plate 8, one face of which is concaved and formed with a number of vertical corrugations 9. This plate is  
45 formed with bolt-holes 10.

The numeral 12 designates the plow-standard, convexed at one side, as seen at 13, and formed with a number of corrugations 14, corresponding and engaging with the cor-  
50 rugations 9 of the plate 8. Said beam is also provided with two elongated slots 15, coinciding with the holes 10. Bolts 16 pass through these

holes and slots, and by loosening the same the beam may be turned to the right or left to adjust the draft.

The numeral 17 designates the furrow-  
55 turner bolted to the standard, 18 the plow-point, and 19 the landside. As will be seen, the rear end of the plow-point is formed with a curved or rounded recess 20 and the land-  
60 side with a corresponding projection 21 engaging therewith, by means of which the parts are mutually braced and decreasing the strain on the point-bolt or face side of point proper. The landside is formed with  
65 a circular hole 23, the outer side of which is formed with a triangular recess 24. Passing through this hole is a bolt 25, having a triangular head 26, corresponding and engaging with said recess and by means of which the  
70 bolt is effectually prevented from rotating.

By the above construction, in which the point and landside are locked together on the side of the plow, the strain is taken off the bolt and point at the place where the  
75 bolt goes through the point to fasten the same on the plow-standard.

The jointer 7 is provided with an arm 27, which is clamped to the plow-beam. The said beam is formed with a concave recess in  
80 which is seated a concavo-convex plate 28, having serrations or corrugations 29 in its outer face, and on the inner or convex side is formed with a curved rib 30, fitting in a corresponding recess in the beam. Engag-  
85 ing with said corrugations is a convexed corrugated plate 31, the outer face of which is made plain or straight. This plate is interposed between the concavo-convex plate 28 and the jointer-arm, with its straight side  
90 bearing against said arm. The plate 28 is provided at diagonal corners with apertured lugs or flanges 32, through which passes a clamp 34, the ends of which pass through an inclined plate 35 at the opposite side of the  
95 beam and are screw-threaded and provided with nuts for clamping the jointer-arm in place. By loosening these nuts and moving the plate 31 up and down the jointer-arm is correspondingly moved toward or away from  
100 the beam, so as to bring the jointer-point into alinement with the landside-point when the plow-beam is turned to the right or left.

The advantages secured by my invention



will be readily perceived by those acquainted with the art to which the invention pertains, and it is not necessary, therefore, to enumerate them herein.

5 Having thus fully described my invention, what I claim is—

1. In a plow, the combination with the beam, the standard formed with a convex corrugated portion provided with horizontal  
10 elongated slots, of the plate formed with bolt-holes and having a corrugated concave portion or recess engaging with said convex portion of the standard, and also having a corrugated convex portion or rib engaging with  
15 a corresponding concave recess and the bolts passing through said holes and slots in the beam, substantially as described.

2. In a plow, the combination with the

beam formed with a recess in the side, of the plate formed on one side with a convex rib 20 seated in said recess and in its opposite side formed with a concave corrugated recess, the apertured lugs at diagonal corners, the plate having a corrugated convex portion engaging with said recess, and the other side made 25 straight or plain, the jointer abutting against the same, and the yoke passing around said arm and through said lugs, substantially as described.

In testimony that I claim the foregoing as 30 my own I have hereunto affixed my signature in presence of two witnesses.

FRANK L. WOODWARD.

Witnesses:

G. E. STURGES,  
J. D. WIGGINS.