

No. 614,119.

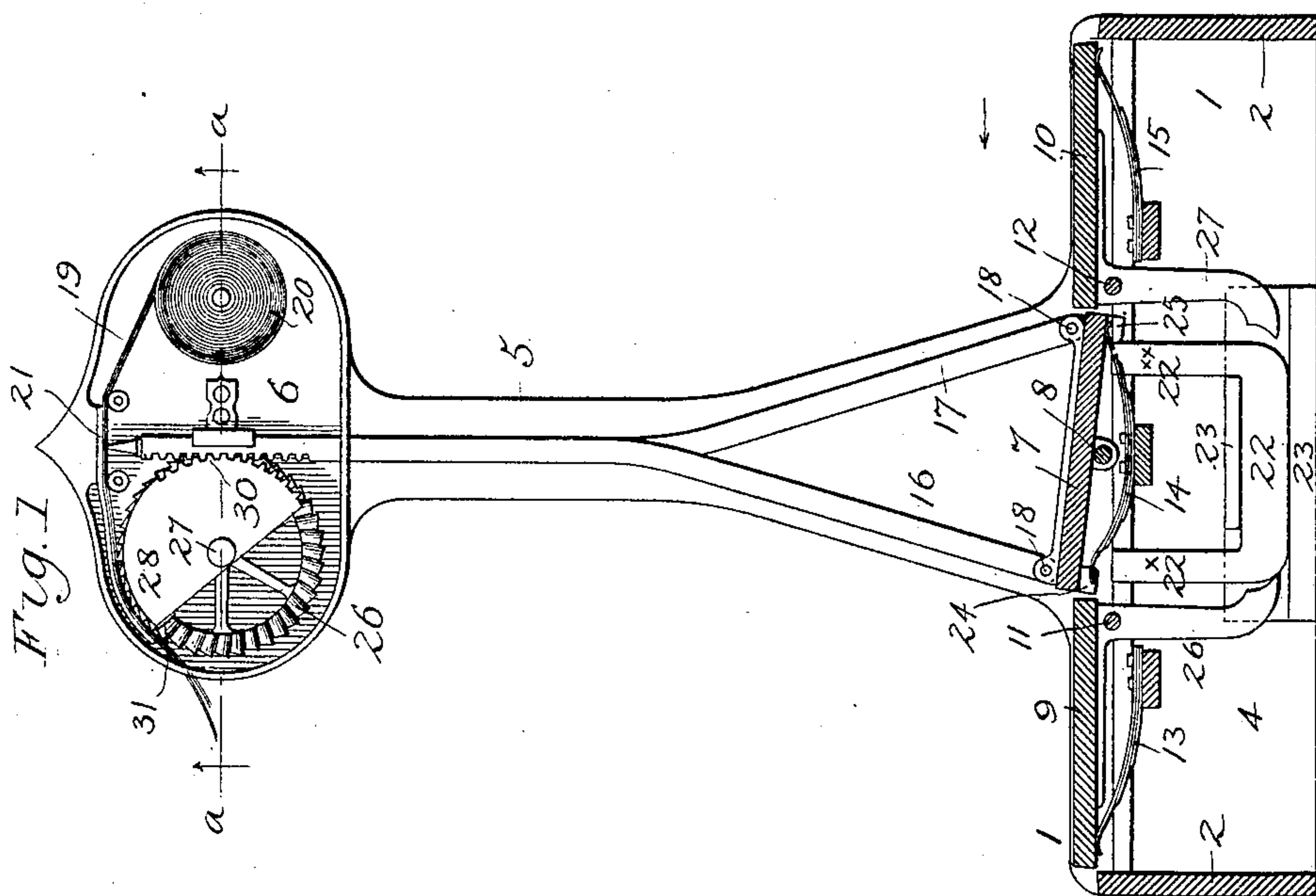
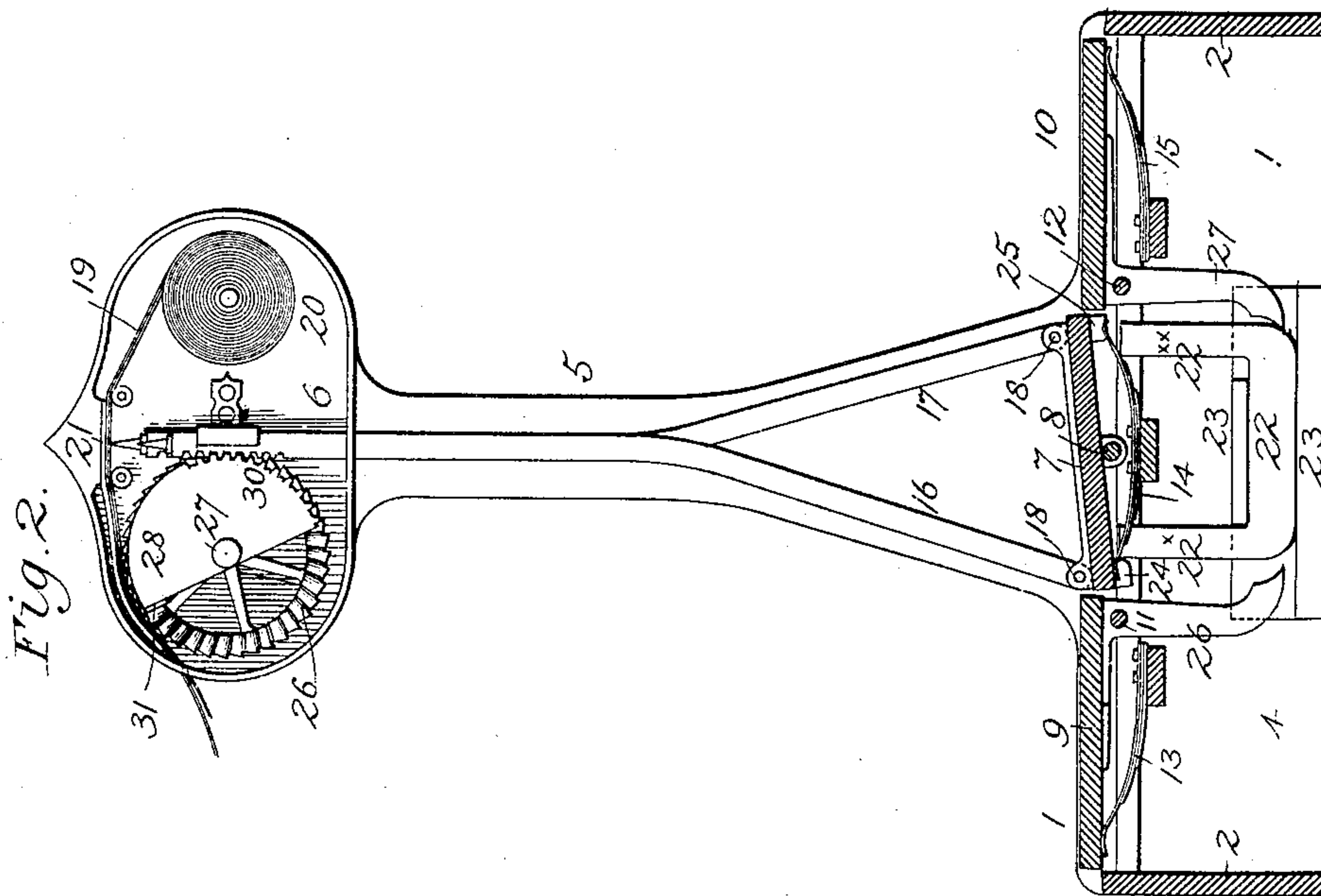
Patented Nov. 15, 1898.

H. F. MANNING & J. K. ROBISON.
RECORDING PLATFORM OR GANGWAY.

(Application filed July 27, 1896. Renewed Aug. 30, 1898.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses:
Arthur Ashley
J. J. Emon.

Inventors:
H. F. Manning
J. K. Robison
C. P. Y. Lodge atty.

No. 614,119.

Patented Nov. 15, 1898.

H. F. MANNING & J. K. ROBISON.

RECORDING PLATFORM OR GANGWAY.

(Application filed July 27, 1896. Renewed Aug. 30, 1898.)

(No Model.)

2 Sheets—Sheet 2.

Fig. 3.

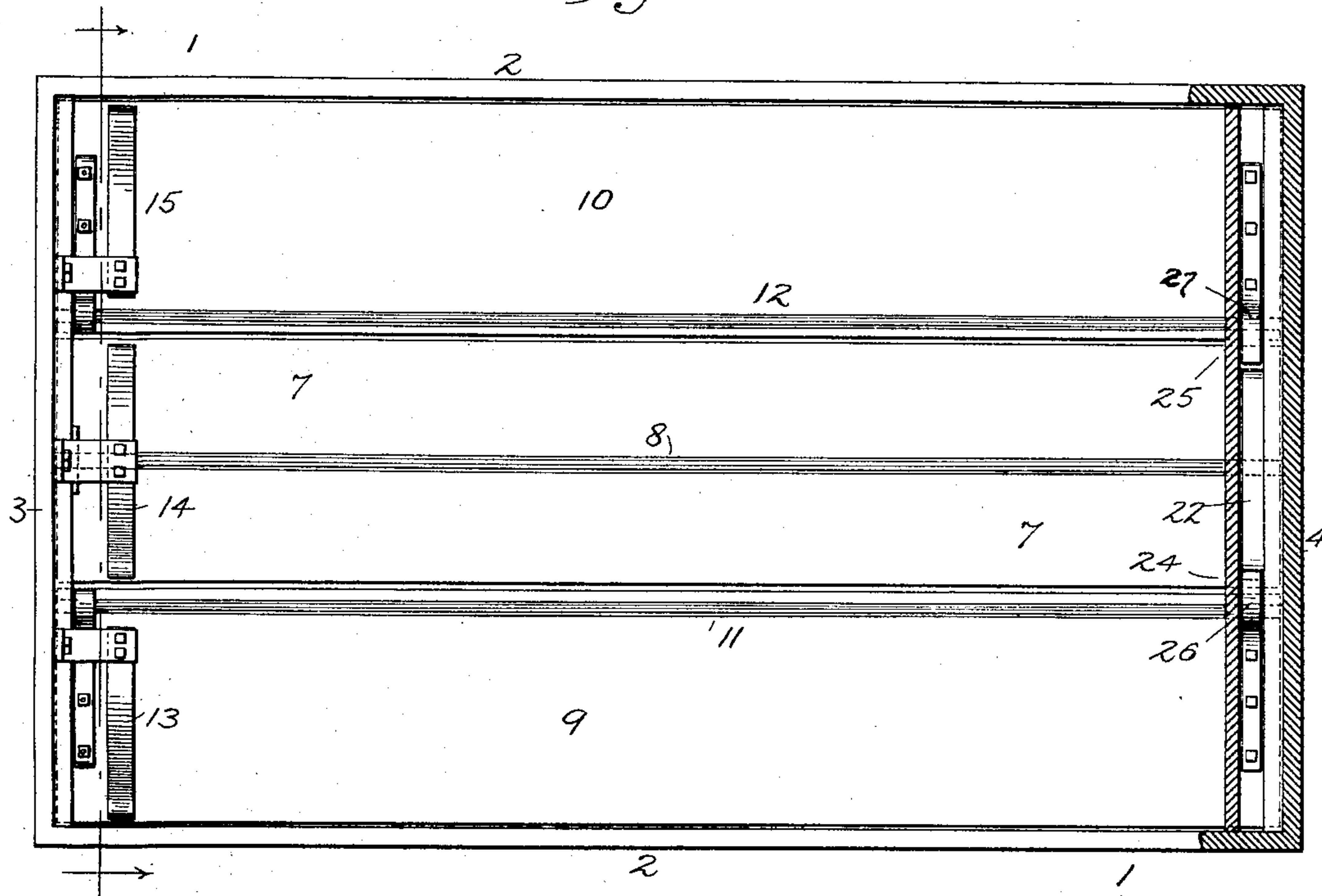
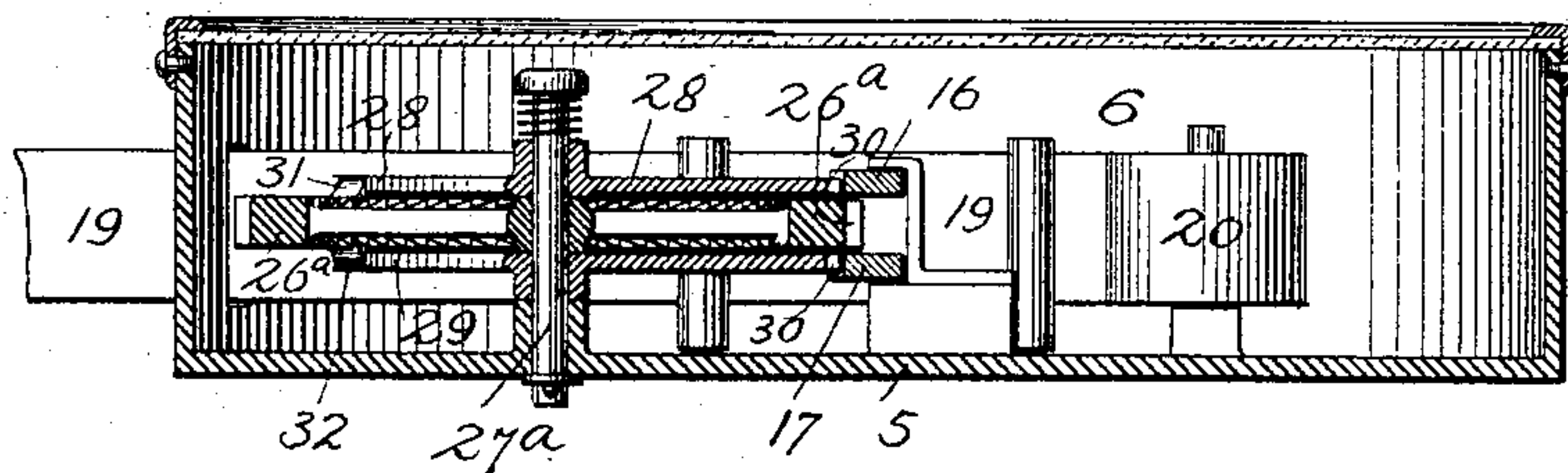


Fig. 4.



Witnesses;
Arthur Ashley
J. S. Elmer

Inventors.
H. F. Manning
J. K. Robison
Chas. P. Dodge atty.

UNITED STATES PATENT OFFICE.

HENRY F. MANNING, OF EMMITSBURG, MARYLAND, AND JOHN K. ROBISON, OF DETROIT, MICHIGAN; SAID ROBISON ASSIGNOR TO CHARLES N. DUGAN, OF BALTIMORE, MARYLAND.

RECORDING PLATFORM OR GANGWAY.

SPECIFICATION forming part of Letters Patent No. 614,119, dated November 15, 1898.

Application filed July 27, 1896. Renewed August 30, 1898. Serial No. 689,845. (No model.)

To all whom it may concern:

Be it known that we, HENRY F. MANNING, of Emmitsburg, State of Maryland, and JOHN K. ROBISON, of Detroit, county of Wayne, and State of Michigan, have invented a new and useful Improvement in Recording Platforms or Gangways, of which the following is a specification.

Our invention has reference to a mechanism for recording the passage of loaded trucks, wagons, or similar objects over a platform or gang-board; and the invention consists in combining with a gang-board or platform a recording mechanism, the said parts being constructed, as will be more fully described hereinafter, to cause a record to be made of the passage of the loads in both directions.

The invention also consists in the details of construction and combination of parts hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a vertical sectional view of our improved apparatus, showing the platform in section and the recording mechanism in elevation. Fig. 2 is a similar view of the parts in another position. Fig. 3 is a bottom plan view of the platform. Fig. 4 is a horizontal section through the recording mechanism on the line *a a* of Fig. 1.

Referring to the drawings, 1 represents a platform or gangway sustained by a rectangular frame or casing, which may be embedded in the ground in such manner as to bring the platform flush, or substantially so, with the surface road or path traveled by the trucks or loads. The casing is formed by the two side walls 2 and the end walls 3 and 4, the latter being extended upward, as at 5, to form a support for the registering mechanism 6, more fully described hereinafter.

The platform is in three sections—a central or registering leaf 7, mounted at its center to rock or tip on a longitudinally-extending shaft 8, fixed between the end walls of the casing, and two side leaves 9 and 10, pivoted at their inner edges on longitudinally-extending shafts 11 and 12, fixed between the end walls of the casing. The three leaves are acted on from beneath by leaf-springs 13, 14,

and 15, which tend to hold them normally in horizontal positions, the springs being of such strength as to permit the leaves to yield only under the weight of a loaded truck or other object it is intended to record and prevent them from being acted on by the passage of an empty truck. It will be necessary, of course, to regulate the tension of the springs according to the weight of the particular load it is desired to record, the essential requirement being that the leaves will remain inactive except when subjected to the weight of the weighted truck or load.

The central or recording leaf is connected to the recording mechanism by means of two rods 16 and 17, pivoted to the inner end of the leaf at its opposite sides, as at 18. These rods are adapted to record, respectively, the passage of a load in opposite directions, and they are extended toward each other and then vertically upward side by side, their upper ends being pointed, so as to make an impression on a ribbon of paper 19, fed over the pointed ends of the rods from a spool 20 and beneath a bed or platen 21, against which the points of the rods will act on the paper. The arrangement is such that the tipping of the central leaf on its axis will cause the two rods to alternately make an impression on the ribbon, the result being that two rows of dots or marks are made, one by one of the rods representing the loads passing in one direction and the other by the companion rod representing the load passing in the opposite direction.

In order that a load passing over the recording-leaf in one direction may be prevented from causing the depression of both edges of the leaf and the operation of both recording-rods, we provide a stop device controlled by the outer leaves and arranged to be moved by the depression of either of said leaves beneath one or the other edge of the central leaf to prevent the same from being depressed. This stop device is in the form of a horizontally-movable U-shaped plate 22, mounted in guides 23 on the inner end wall of the casing, the two vertical arms of the plate being arranged to be moved alternately

beneath lugs 24 and 25, fixed to the under side of the recording-leaf, as plainly shown in Figs. 1 and 2. The movement of the plate is effected by bracket-arms 26 and 27, which
5 are fixed to the under side of the side leaves and which when the leaves are depressed will push the plate horizontally in its guides.

Under the arrangement described the passage of a load in the direction of the arrow
10 in Fig. 1 will tip the outer leaf 10 on its axis and, through its bracket-arm 27, push the stop-plate 22 to the position shown in Fig. 1, with its arm 22^x beneath the lug 24 and its other arm free of the lug 25. When the load reaches
15 the central leaf, its right edge will be depressed and the rod 16 moved upward and caused to make an impression on the paper. The load continuing will have no effect on the opposite edge of the leaf; but when it reaches the
20 the outer leaf 9 it will depress the same and, through its bracket-arm 26, push the plate 22 back to its former position, the arm 22^x beneath the lug 25, and the arm 22^x free of lug 24. In this position of the parts if a second
25 load is passed over the platform in the same direction the operation is repeated and a second mark will be made on the paper beside that first made. Now suppose a load is passed over the platform in the opposite direction.
30 The arm 22^x being free of lug 24, when the load reaches the central leaf its left edge will be depressed and the rod 17 moved upward and caused to make a mark on the paper. The load continuing will not effect the right
35 edge of the central leaf and when it reaches the outer leaf 10 will depress the same and push the plate 22 until its arm 22^x is beneath lug 24. It is seen, therefore, that the mechanism will record continuously the uninterrupted passage of the loads in one direction,
40 and the uninterrupted passage of the loads in the opposite direction, and the alternate passage of the loads first in one and then in the other direction.

45 In order that the ribbon may be fed with certainty, we have devised a simple feeding mechanism adapted to be operated by the movement of the recording-rods. This mechanism consists of a toothed feeding-wheel 26,
50 mounted on a horizontal spindle 27, projecting from the upward continuation of the end wall 4. This wheel is formed on its opposite sides with radial ribs or projections and is rotated by means of two semicircular plates
55 28 and 29, mounted loosely on the spindle 27 on opposite sides of the wheel. These plates are formed at one side with teeth 30, meshing with teeth on the side of the recording-rods, and the two plates are provided on their inner
60 sides at their ends each with a single beveled tooth 31 and 32. As a result of this arrangement when one of the recording-rods is pushed upward it will impart motion to its semicircular plate, which will through its beveled
65 teeth rotate the feeding-wheel, the other rod being at the same time drawn downward and

the beveled tooth on the semicircular plate slipping over the projections on the wheel.

It is to be observed that the central wheel is moved only by the movement of either 70 semicircular plate in one direction, the opposite direction of either of said plates having no effect on the wheel on account of the beveled shape of the driving-tooth.

Having thus described our invention, we 75 claim—

1. In an automatic recording platform or gangway, the combination with a recording mechanism, of a platform comprising a central movable leaf or member and two movable 80 side leaves, connections between the central leaf and the recording mechanism, and a stop device for the central leaf controlled by the movement of the side leaves.

2. In an automatic recording platform, or 85 gangway, the combination with a recording mechanism, of a central leaf mounted to rock on a longitudinal axis, connections between the recording mechanism and the leaf, a movable stop device adapted to be adjusted to 90 permit the central leaf to yield at one side only, two side leaves mounted to rock on longitudinal axes, and means for controlling the adjustability of the stop by the movement of said side leaves. 95

3. In an automatic recording platform or gangway, the combination with a recording mechanism, of a central leaf mounted to rock on a longitudinal axis, connections between the leaf and the recording mechanism, a hori- 100 zontally-movable stop device for said central leaf, two side leaves pivoted at their inner edges on longitudinal axes, and arms carried by said side leaves in position to engage and move the stop device when the leaves are de- 105 pressed.

4. In an automatic recording platform or gangway the combination with a recording mechanism, of a platform embodying a leaf movable on a longitudinal axis, and connec- 110 tions from the opposite sides of the axis of said leaf to the recording mechanism.

5. In an automatic recording-platform, the combination with a rocking leaf, of two re- 115 cording-rods operatively connected to said leaf and adapted to be moved alternately in opposite directions by the passage of the load, a ribbon to receive the impression of the rods, a feeding-wheel engaging the ribbon and con- 120 nections between the feeding-wheel and the recording-rods.

6. In an automatic recording-platform the combination with a rocking leaf of two re- 125 cording-rods operatively connected to said leaf and adapted to be moved alternately in opposite directions by the passage of the load, an impression-ribbon and mechanism for feeding the ribbon operated by the movements of the rods.

7. The combination with the recording-rods 130 adapted to be reciprocated alternately by the weight of the load, of a ribbon against which

the rods act, a feeding-wheel engaging the ribbon, driving-plates for said wheels on the opposite sides of the same, gear-teeth on said plates and teeth on the recording-rods mesh-
5 ing with the teeth on the plates.

8. The combination with the alternately-reciprocating recording-rods adapted to be operated by the passage of a load and provided with teeth, of the ribbon extending past
10 the ends of the rod, a wheel provided with peripheral teeth engaging said ribbon, driving-plates on opposite sides of the wheel adapted to drive the wheel when moved in one direction, and teeth on said plates engag-
15 ing the teeth on the recording-rods.

9. The combination with the central leaf, of a movable stop therefor, side leaves controlling the movement of said stop, recording-rods connected to the central leaf, an impres-

sion-ribbon, a feeding mechanism for advancing the ribbon and suitable connections between the recording-rods and said feeding mechanism.

In testimony whereof I hereunto set my hand, this 30th day of January, 1896, in the presence of two attesting witnesses.

HENRY F. MANNING.

Witnesses:

E. H. ROWE,
JOSEPH A. CRETIN.

In testimony whereof I hereunto set my hand, this 25th day of March, 1896, in the presence of two attesting witnesses.

JOHN K. ROBISON.

Witnesses:

I. E. AVERY,
R. H. GRAY.