J. F. M. PATITZ.

BALANCING MACHINE.

APPLICATION FILED MAR. 27, 1907.

995,087.

Patented June 13, 1911.

2 SHEETS—SHEET 1.

Fig. II.

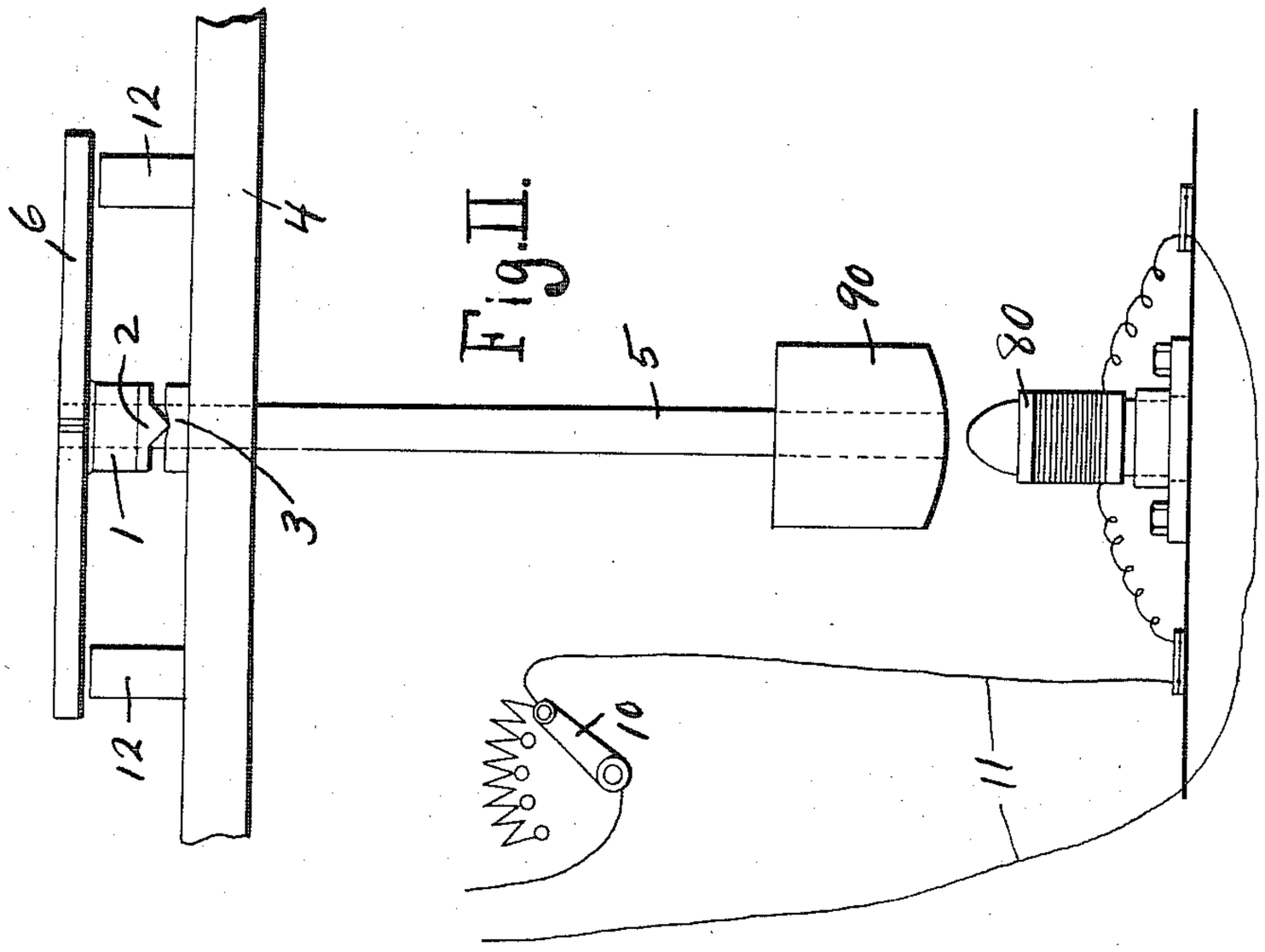
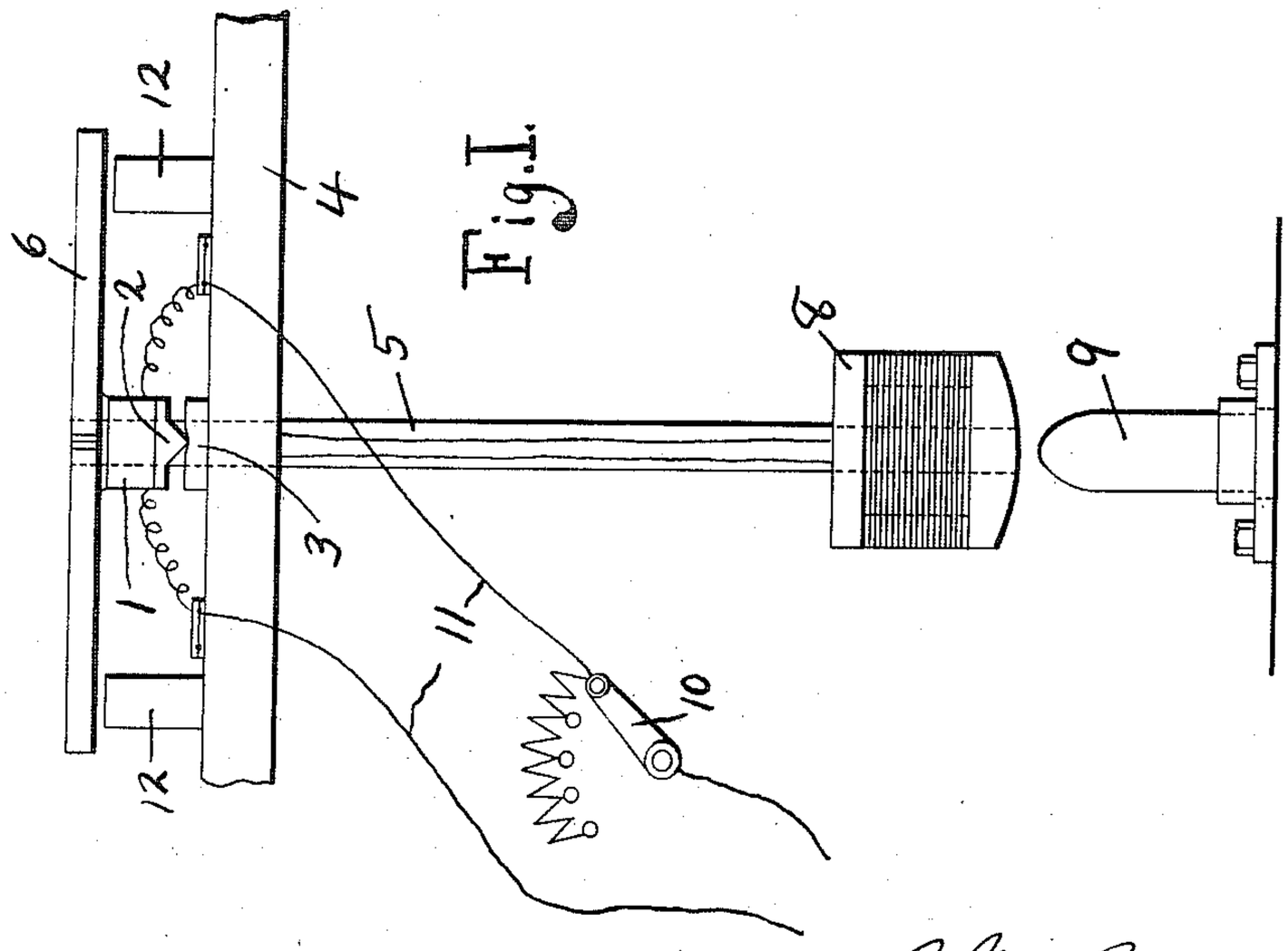


Fig. I.



WITNESSES:

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2 SHEETS—SHEET 2.

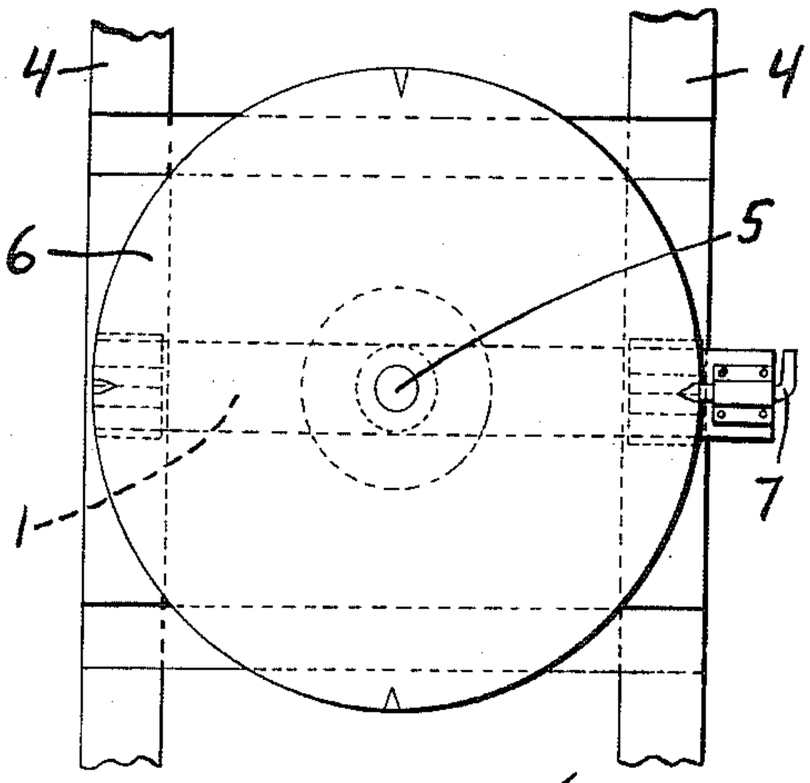

Fig. IV.

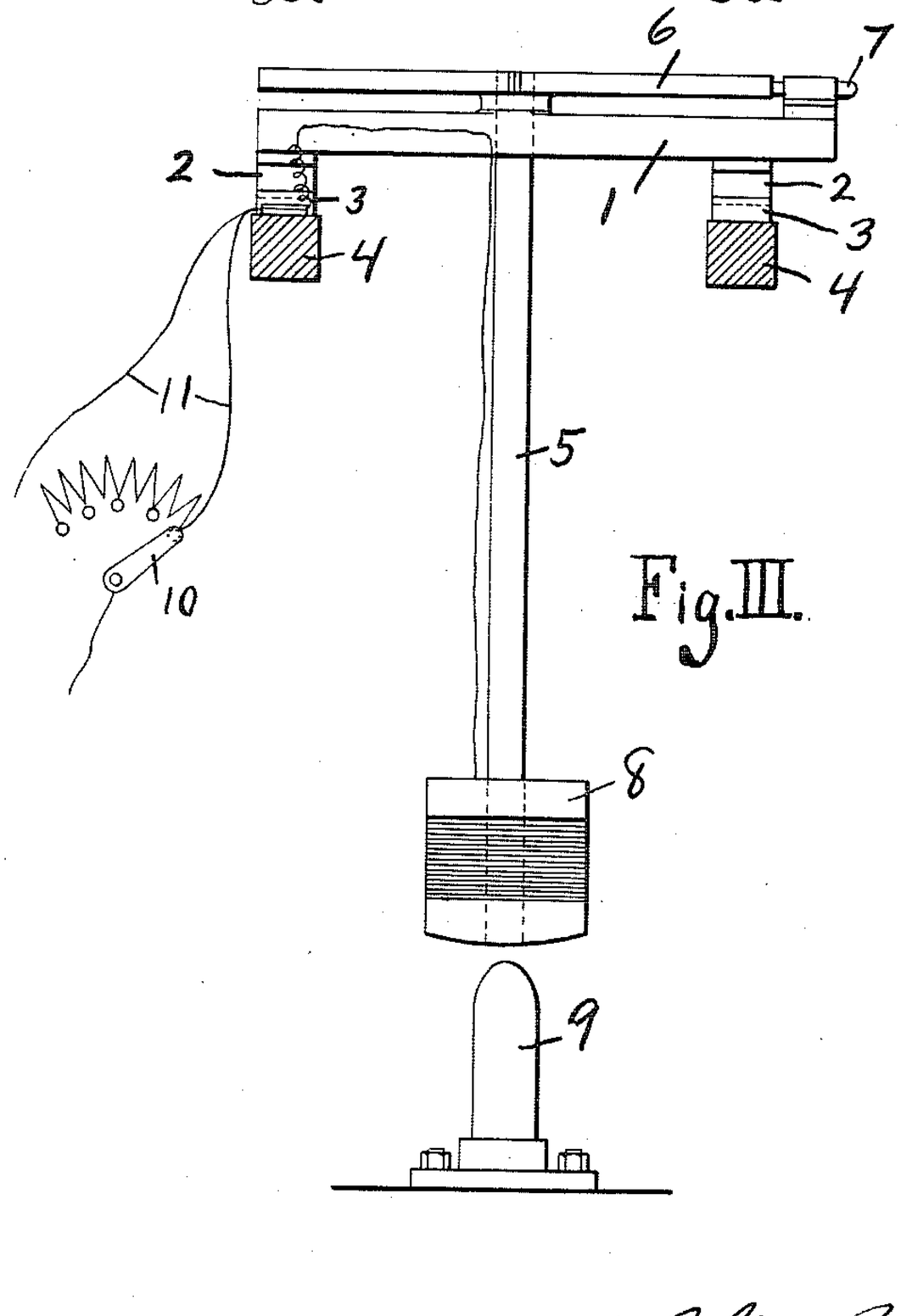

Fig. III.

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UNITED STATES PATENT OFFICE.

JOHANN FREDERICK MAX PATITZ, OF MILWAUKEE, WISCONSIN, ASSIGNOR TO ALLIS-CHALMERS COMPANY, OF MILWAUKEE, WISCONSIN, A CORPORATION OF NEW JERSEY.

BALANCING-MACHINE.

995,087. Specification of Letters Patent. Patented June 13, 1911.

Application filed March 27, 1907. Serial No. 364,858.

To all whom it may concern:

Be it known that I, JOHANN FREDERICK MAX PATITZ, a citizen of the United States, residing at Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented a certain new and useful Balancing-Machine, of which the following is a specification.

This invention relates to balancing machines or that class of devices by which the light or heavy side of an object is determined with respect to some axis of the body, and specifically it relates to means for preventing excessive tipping of a support upon which a body may be placed the balance of which is to be determined.

Referring to the drawings which accompany this specification and form a part thereof and on which the same reference characters are used to designate the same elements in each of the several figures—Figure 1 illustrates in elevation a balancing machine embodying this invention; Fig. 2 illustrates in elevation a modification; Fig. 3 illustrates an elevation of the apparatus shown in Fig. 1, the view being taken at right angles to the view shown by Fig. 1; and Fig. 4 illustrates a plan view of the apparatus.

Referring to the drawings, the numeral 1 designates a support or cross arm provided upon its lower side with the hardened V's 2 which are adapted to rest upon the hardened blocks 3 secured to beams 4, or supported in any other convenient and suitable way. Secured to the support 1 is the rod 5 which extends downwardly therefrom and which preferably also extends up through said support 1 so as to provide a stud upon which a turntable 6 is rotatably mounted, said turntable being adapted to be retained in one of several positions by means of any ordinary form of latching mechanism 7 secured to the support 1.

The term turntable as used herein refers to a table which is ready to serve as a weighing platform in any position to which it may be turned and is contradistinguished from any such turning platform the object of whose turning is to space certain parts from knife edges with which they coact.

An electromagnet 8 is secured to the lower end of the rod 5, the wires leading thereto being carried up the shaft to a point near the hardened V's, as a convenient means for providing for movement of the shaft without interfering with said wires. Secured below said electromagnet 8 is an armature 9 which may be secured to the floor of a building or to any other suitable support.

The numeral 10 designates the switch of a controller or rheostat by which the flow of current through the wires 11 and the electromagnet may be controlled.

The use and operation of the apparatus is as follows: A body, as, for example, a pulley, being placed upon the turntable 6 and properly centered with respect to the rod 5, will cause said turntable 6 to tip downwardly at that side of the pulley which is the heavier, the amount of tipping allowed being controlled through the switch 10 by the amount of current supplied to the electromagnet 8. The turntable 6 being revoluble about the rod 5, enables the turntable with the object thereon to be turned so that with a given current the greatest tip is produced, thereby indicating with precision the heavier side of the body.

The details of the construction of the apparatus shown by Fig. 2, are in all essential particulars the same as those shown by Fig. 1, stops 12 being provided with either form of apparatus to prevent an excessive tipping of the turntable. The only difference between the apparatus as shown by Fig. 2 from that as shown by Fig. 1 is in the fact that the electromagnet 80 is secured to the floor or other support while the armature 90 is secured to the rod 5, the wires leading to the electromagnet being changed to correspond with the change in its location.

What I claim is,—

1. The combination with an oscillatable support, of a turntable carried thereby, a rod extended from said support, an electromagnet carried by said rod, and a stationary armature located adjacent said magnet.

2. The combination with an oscillatable support, of a turntable carried thereby, a rod extended vertically from said support, an electromagnet carried by said rod, and a stationary armature located adjacent said magnet.

3. The combination with an oscillatable support, of a turntable carried thereby, a rod extended vertically from said support, an electromagnet in fixed position on said rod, a stationary armature located adjacent

said magnet, and means for energizing said magnet in varying degree as desired.

4. The combination with two elements one an electromagnet and the other an armature for said magnet, an oscillatable support, a turntable carried by said support, and a rod extended from said support, one of said elements being carried by said rod and the other of said elements being stationary and located adjacent the other of said elements.

In testimony whereof, I affix my signature in the presence of two witnesses.

JOHANN FREDERICK MAX PATITZ.

Witnesses:

H. C. CASE,

FRANK E. DENNETT.