

(No Model.)

F. LANSBERG.
VALVE FOR AIR BRAKES.

No. 415,521.

Patented Nov. 19, 1889.

Fig. I.

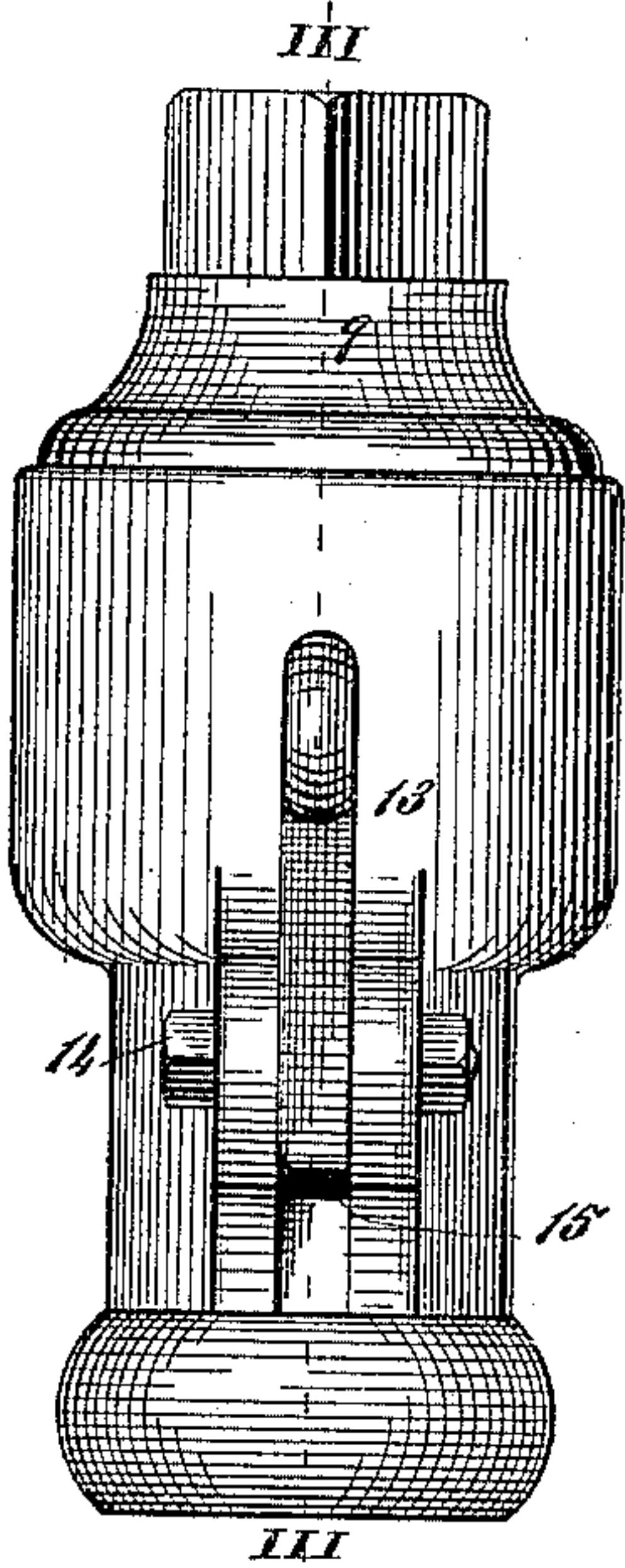


Fig. II.

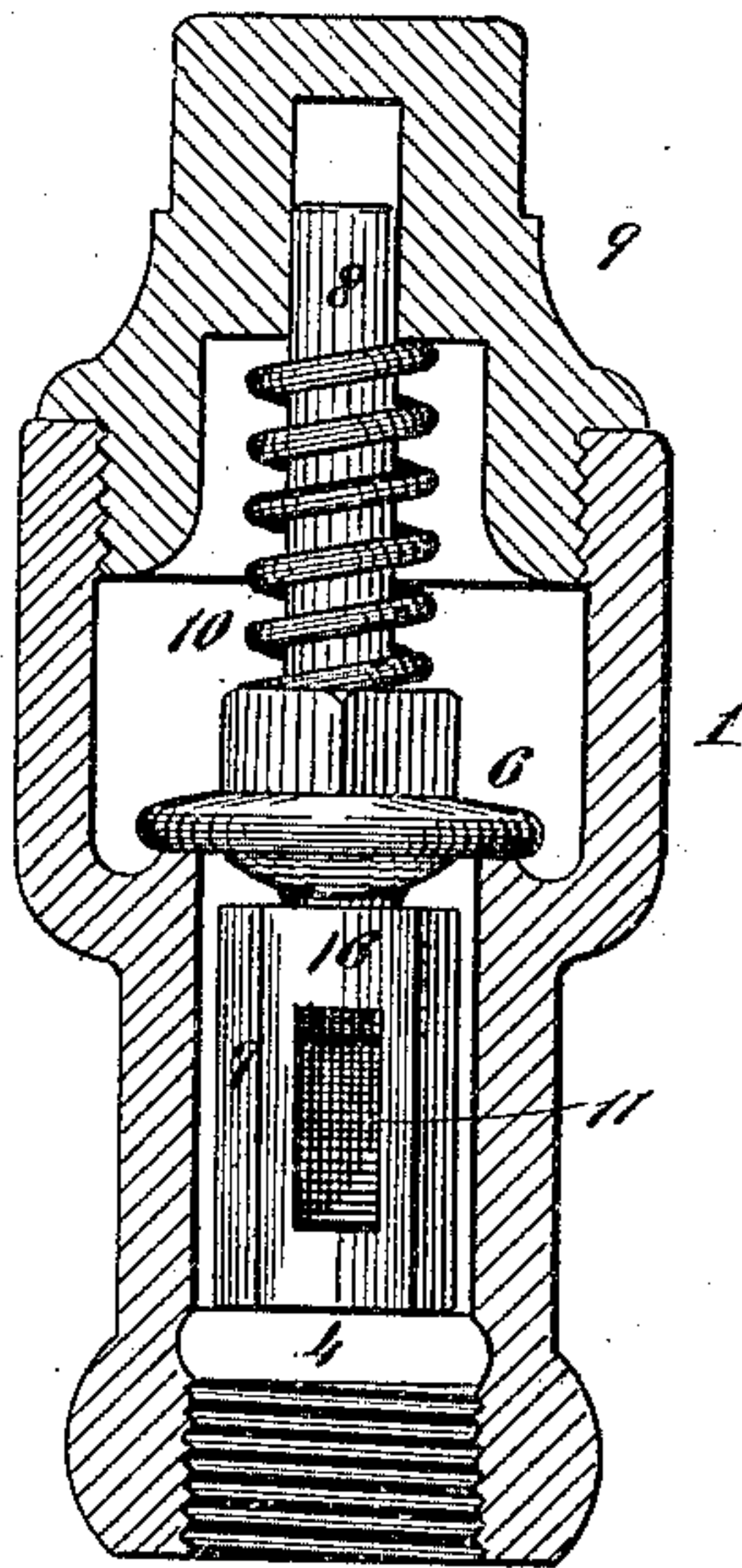


Fig. III.

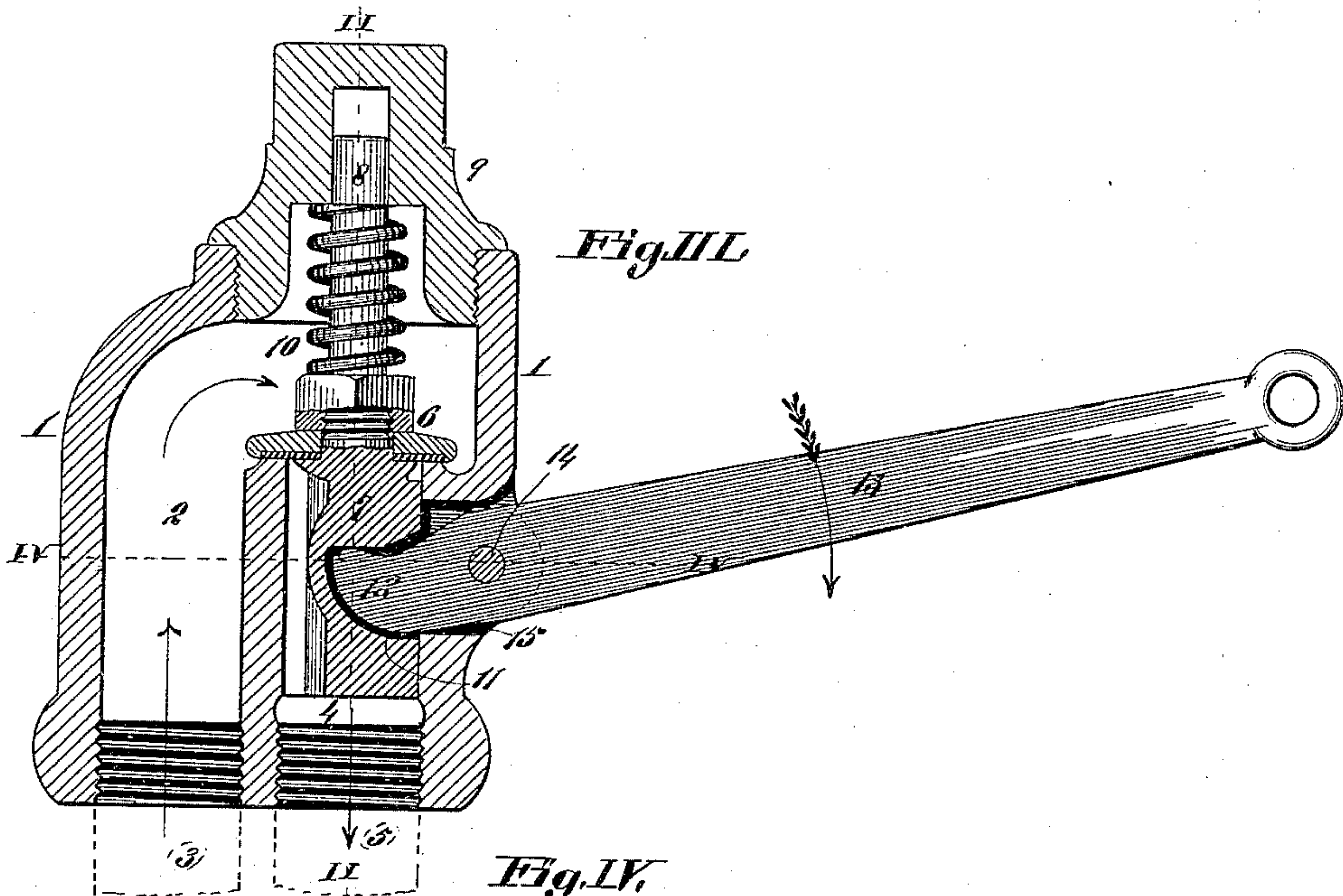
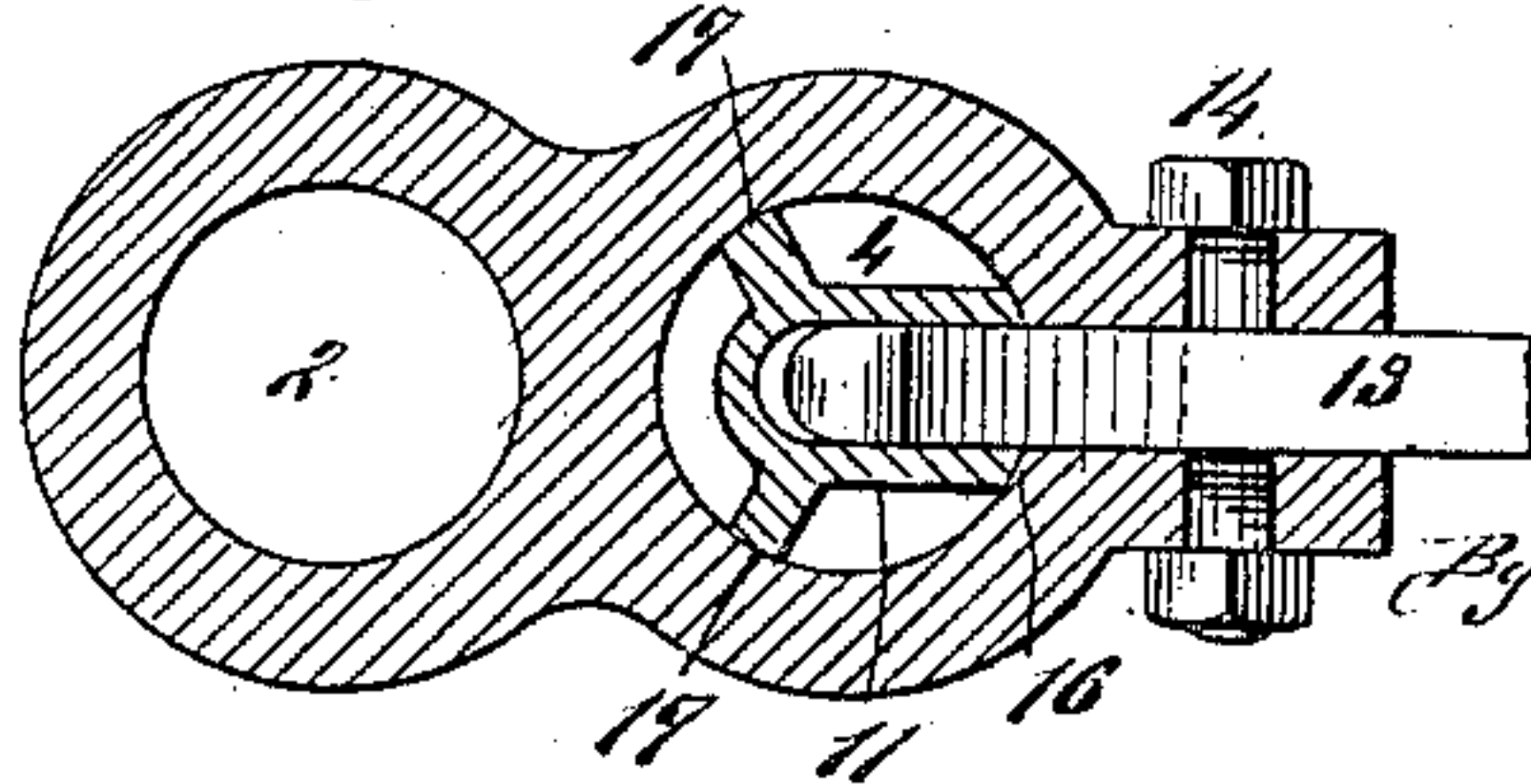


Fig. IV.



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UNITED STATES PATENT OFFICE.

FRANK LANSBERG, OF ST. LOUIS, MISSOURI, ASSIGNOR TO THE LANSBERG BRAKE COMPANY, OF EAST ST. LOUIS, ILLINOIS.

VALVE FOR AIR-BRAKES.

SPECIFICATION forming part of Letters Patent No. 415,521, dated November 19, 1889.

Application filed May 29, 1889. Serial No. 312,523. (No model.)

To all whom it may concern:

Be it known that I, FRANK LANSBERG, of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Valves for Air-Brakes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, and in which—

Figure I is an elevation of my improved valve. Fig. II is a vertical section taken on line II II, Fig. III. Fig. III is a vertical section taken on line III III, Fig. I. Fig. IV is a transverse section taken on line IV IV, Fig. III.

My present invention relates to certain improvements in the construction of conductors' valves for air-brakes of railway-cars; and this invention consists in features of novelty hereinafter fully described, and pointed out in the claim.

Referring to the drawings, 1 represents the housing of the valve, within which is a port 2, with which communicates the pipe 3 from the train-pipe or from the air-reservoir. Within the housing is also a port 4, with which communicates an exhaust-pipe 5. The port 4 is controlled by means of a valve 6, seated on the upper end of the port and having a neck 7, extending down into the port, and also an upwardly-extending stem 8, which fits in a hollow cap 9 of the housing. Between the valve 6 and the cap 9 fits a spring 10, which surrounds the stem 8. The tendency of this spring is to keep the valve 6 closed, and in this it is assisted by the natural tendency of the air to force the valve closed. The neck 7 is recessed, as shown at 11. In this recess fits the inner end 12 of a lever 13, pivoted at 14 to the housing 1 and fitting in an opening 15 in the housing. In pulling downward on the outer end of this lever, or moving it in the direction of the arrow, Fig. III, the valve 6 is opened, and the air is

allowed to escape from the pipe 3, and the brakes of the system are thus set. As soon as the lever is released, the valve closes under the natural tendency of the air to close it and under the influence of the spring 10.

To avoid danger of leakage of the air at the opening 15 in the housing, I form the back of the neck 7 as shown in Figs. II and IV—that is to say, I form it with a flat surface, as shown at 16, which is sufficiently wide to cover the opening 15 and prevent the escape of air at the opening. This face 16 is held against the wall of port 4 by means of wings 17 on the stem, which bear against the wall of the port, as shown in Fig. IV. Thus the stem effectually prevents any escape or leakage of air through the opening in which the lever fits and works.

A conductor's valve of my improved construction is cheap and durable, and there is practically no possibility of its getting out of order or failing to operate, or of the escape of air into the car.

By removing the cap 9 the valves may be taken out and repaired with very little or comparatively no loss of time.

I claim as my invention—

The combination of the housing provided with the inlet and discharge ports, a valve seated on the upper end of the discharge-port, a stem on the valve fitting in the hollow cap of the housing, a spring surrounding the stem, a recessed neck extending downwardly from the valve, and a lever fitting in an opening of the housing and in the recess of the neck of the valve and pivoted to the housing, said valve having a flat surface 16 for covering the opening in the housing in which the lever fits, substantially as and for the purpose set forth.

FRANK LANSBERG.

In presence of—

GEO. H. KNIGHT,
THOMAS KNIGHT.