

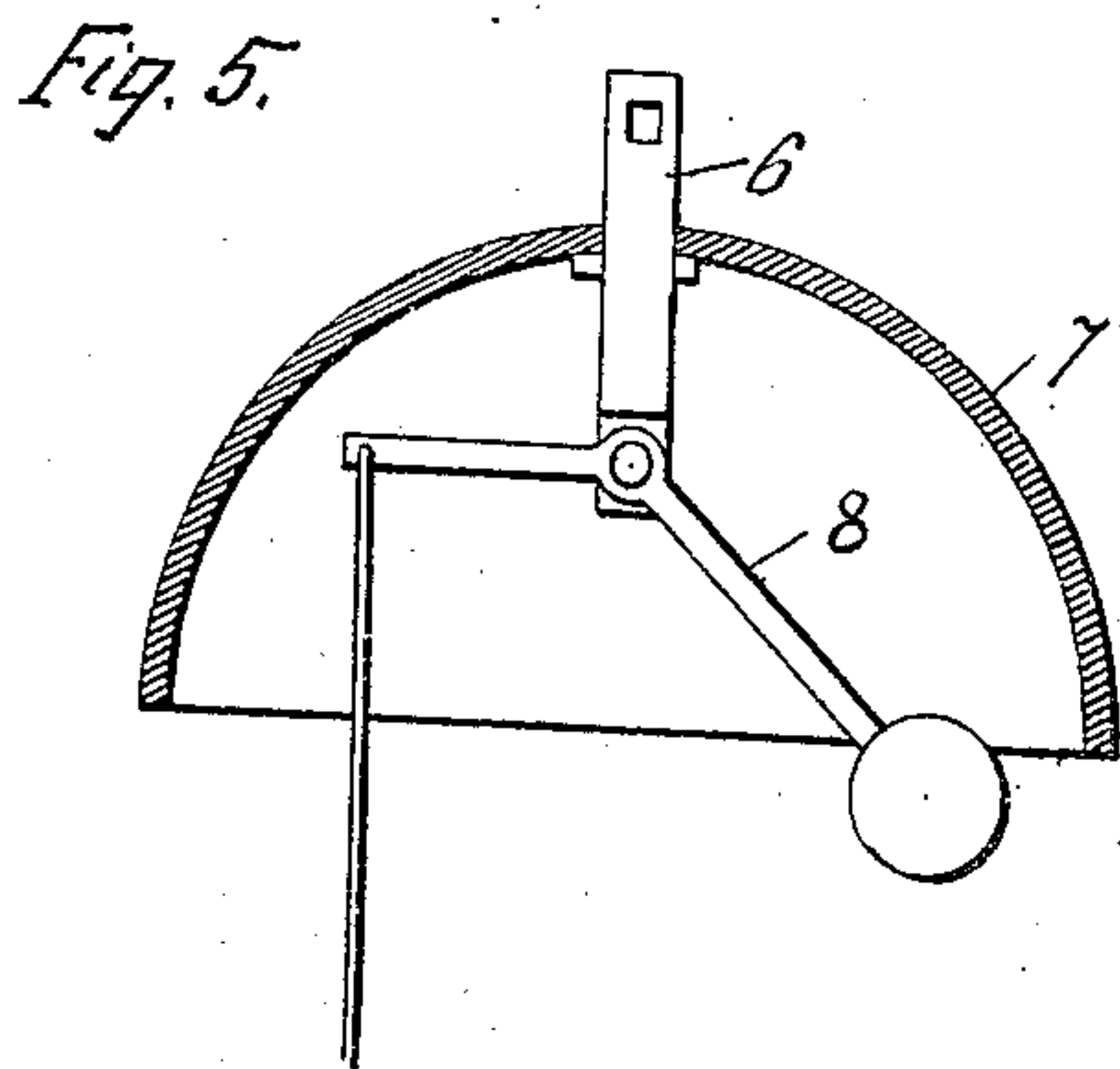
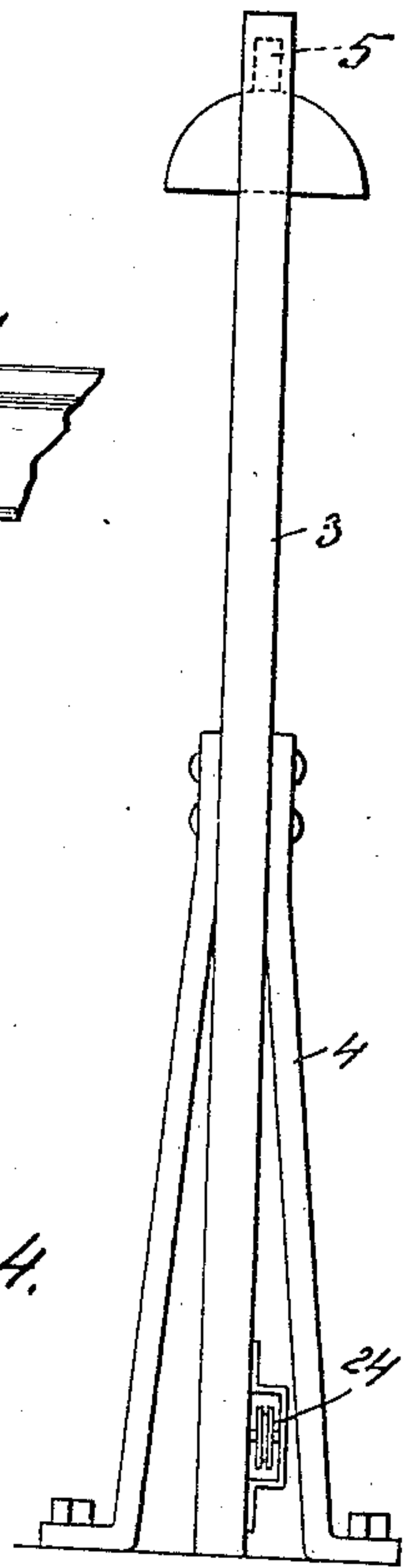
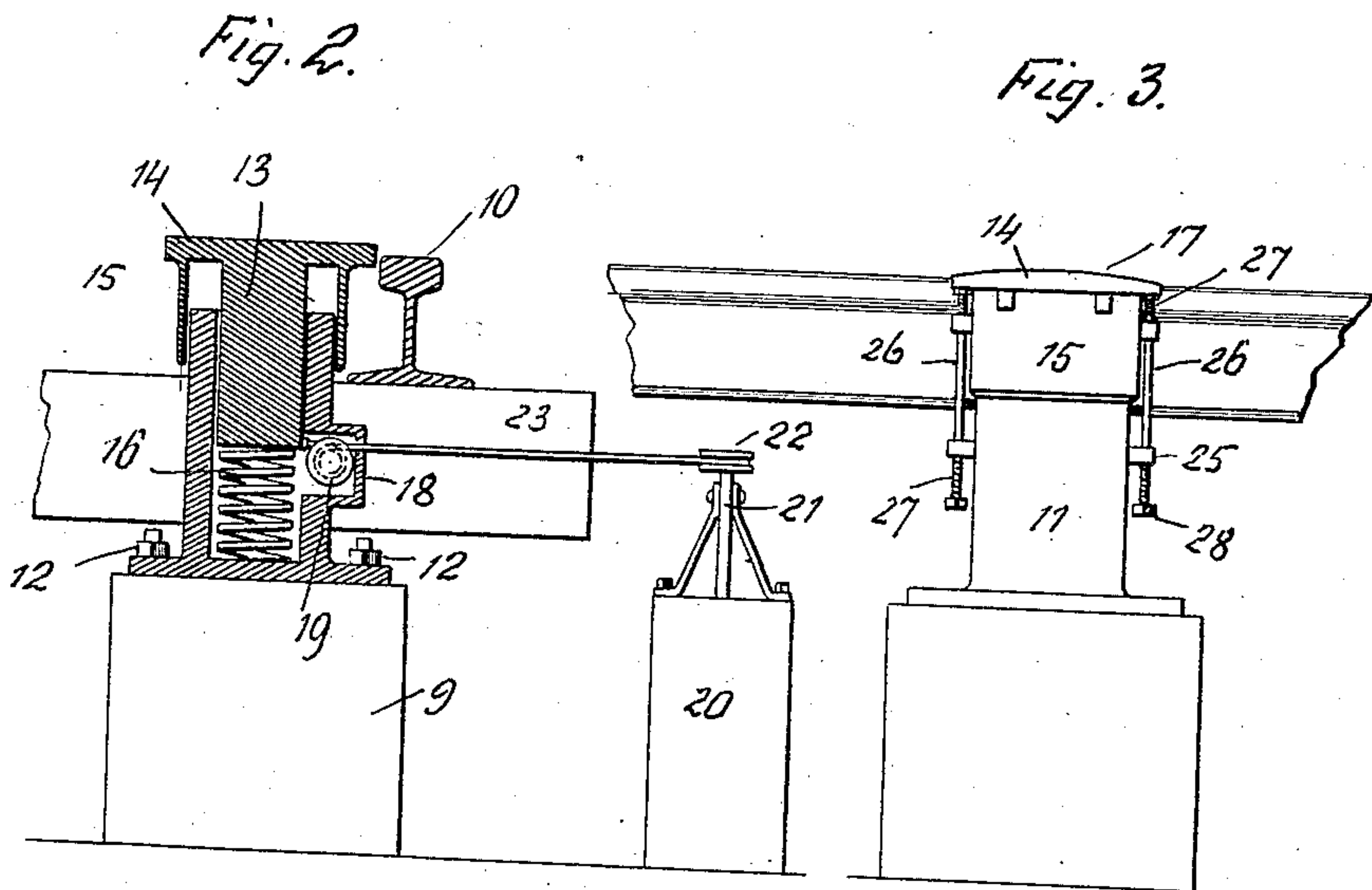
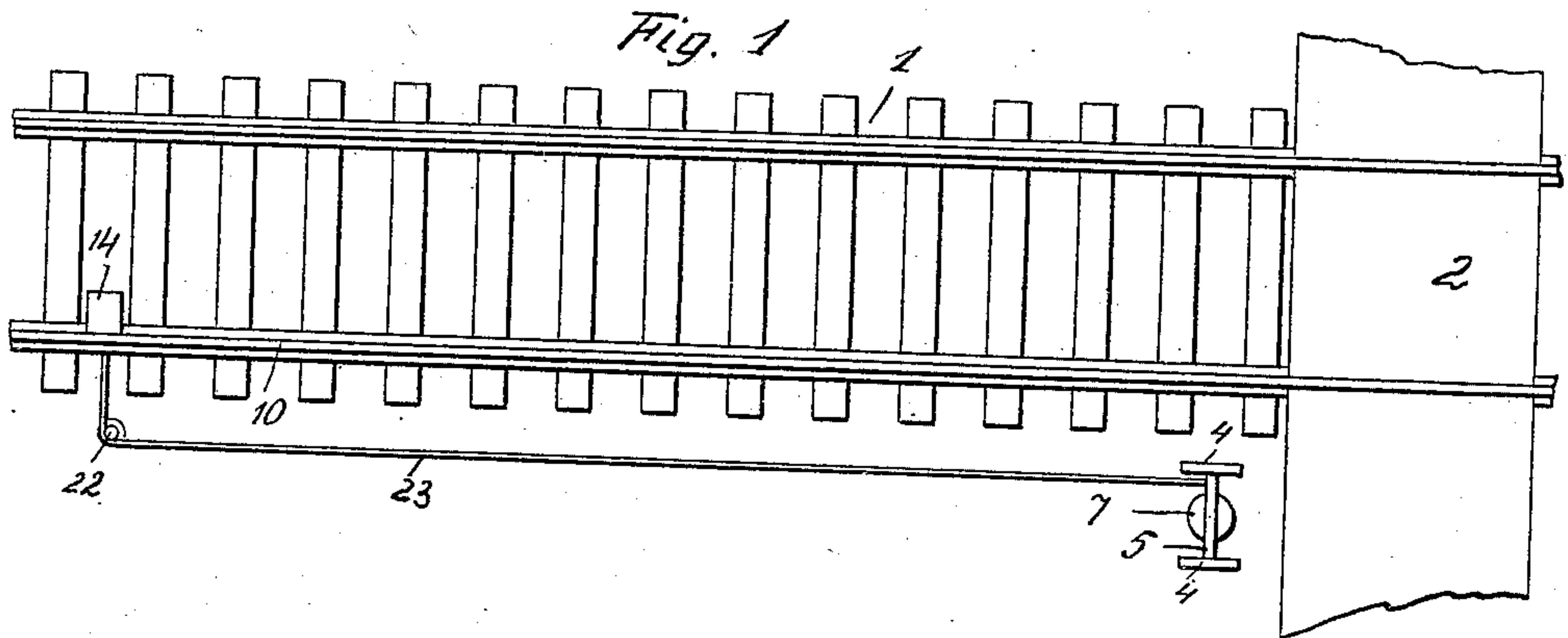
No. 879,718.

PATENTED FEB. 18, 1908.

A. ARETZ.

AUTOMATIC SIGNAL FOR RAILWAY CROSSINGS.

APPLICATION FILED DEC. 13, 1907.



Witnesses
E. Fogarty

W. B. Butler

Inventor
A. ARETZ

By

H. C. Everett

Attorney

UNITED STATES PATENT OFFICE.

ALBERT ARETZ, OF TARENTUM, PENNSYLVANIA.

AUTOMATIC SIGNAL FOR RAILWAY-CROSSINGS.

No. 879,718.

Specification of Letters Patent.

Patented Feb. 18, 1908.

Application filed December 13, 1907. Serial No. 406,344.

To all whom it may concern:

Be it known that I, ALBERT ARETZ, a citizen of the United States of America, residing at Tarentum, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Automatic Signals for Railroad-Crossings, of which the following is a specification, reference being had therein to the accompanying drawing.

10 This invention relates to an automatic signal for railroad crossings, and the primary object of the invention is to provide positive and reliable means for operating a visible or audible signal at a railroad crossing, prior to
15 a locomotive or train reaching the crossing.

Another object of this invention is to provide a device adapted to be automatically actuated for sounding an audible signal, such as a bell, whereby pedestrians at a crossing
20 will be warned upon the approach of a locomotive or train. To this end, I use a bell tower located at a crossing, a considerable distance away from the crossing, and upon one side of the railroad track I locate a device adapted to be actuated by a locomotive
25 or train to ring the bell in the tower located at the crossing. The device is constructed whereby it will be normally maintained in position to be operated by a locomotive or
30 train, and its construction prevents the forces of nature from interfering with the operation of the signal.

The detail construction entering into my invention will be presently described and
35 then specifically pointed out in the appended claims.

Referring to the drawing: Figure 1 is a plan of my signal, and a portion of a railroad track or crossing, Fig. 2 is a vertical sectional
40 view of the operating device of the signal, Fig. 3 is a side elevation of the same, Fig. 4 is an elevation of a signal tower constituting part of my invention, and Fig. 5 is an enlarged sectional view of the bell of the signal
45 tower.

In the accompanying drawing, 1 designates a railroad track transverse by a road or pavement 2. Contiguous to the pavement or road 2, I locate a bell tower comprising
50 standards 3 suitably braced as at 4. The upper ends of these standards are connected by a transverse bar 5 from which is suspended a hanger 6, carrying a dome-shaped bell 7 and a pivoted clapper 8.

55 A considerable distance away from the bell tower, I mount the operating device of my

signal, this device being located upon a suitable foundation 9 in close proximity to one of the rails 10 of the track 1, preferably the rail upon the same side of the track as the bell
60 tower. The device comprises a casing 11 suitably secured to the foundation 9, as at 12. In the casing is located a depending plunger 13 carried by a cap 14, this cap having depending flanges 15 surrounding the
65 casing 11 and preventing water, dirt or foreign matter from entering the casing, and interfering with the movement of the plunger 13 therein. The plunger 13 is supported upon a coil spring 16 which is adapted to nor-
70 mally hold a cap 14 above the tread of the rail 10, and in order that the wheels of a locomotive or train can easily impinge and depress the cap 14 I bevel the same as at 17. The casing 11 is provided with an extension
75 18, and journaled in said extension is a grooved pulley 19.

The casing 11 is preferably located upon the inner side of the rail 10, whereby the flange of the wheel can easily operate the
80 device, and upon the outer side of the rail adjacent to the operating device, I locate another foundation 20, this foundation carrying a suitable bearing 21 for a horizontal grooved sheave 22.

85 Connected to the lower end of the plunger 13 is a cable 23, said cable passing over the pulley 19, sheave 22 and extending along the track 1. The cable passing under a sheave 24 carried by one of the standards 2 of the
90 bell tower, the cable then extending upwardly, and connecting with the clapper 8 of the bell.

To prevent the beveled cap 14 from being forced from the casing 11 by the tension of
95 the spring 16, I provide the sides of the casing 11 and the flanges 15 with pierced lugs 25, and passing through said lugs are rods 26 having threaded ends 27 for nuts 28. The nuts upon the ends of the rods 26 are adapted
100 to prevent the recoil of the spring 16 from displacing the plunger 13.

It is thought that the operation of my invention will be fully understood, and I reserve the right to use a visible signal in lieu
105 of the audible signal, and to make such changes in the construction of the invention as are permissible by the appended claims.

Having now described my invention what I claim as new, is:—

1. In a signal the combination with a rail, of a bell tower located adjacent to said rail, a

110

bell carried by said tower and having a
pivoted clapper, a casing supported at the
inner side of said rail, and a considerable dis-
tance away from said bell tower, a spring
5 supported plunger mounted in said casing, a
beveled cap carried by said plunger and
having depending flanges surrounding said
casing, said cap extending above the tread of
said rail, rods arranged at opposite sides of
10 said casing for preventing the displacement
of said cap, a pulley journaled in said casing,
a cable connected to said plunger and passing
over said pulley, a sheave located adjacent to
said rail, a sheave carried by said bell tower,
15 said cable passing over said sheave and con-
necting with the pivoted clapper of said
tower, substantially as described.

2. In a signal, the combination with a rail,

of a bell tower located adjacent thereto, a
bell arranged in said tower, a pivoted clapper 20
adapted to strike said bell, an operating de-
vice arranged adjacent to said rail and a con-
siderable distance from said tower, said de-
vice comprising a casing, a spring supported
plunger, a beveled cap carried by said plun- 25
ger and extending above the tread of said
rail, a cable connecting with said plunger,
and with the clapper of said bell tower, and
means for preventing the displacement of
said plunger with relation to said casing. 30

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

ALBERT ARETZ.

Witnesses:

JOHN DERIKORETT,
OMER J. MANANDISE.