P. M. STAVDAL.

TRACK GAGE.

APPLICATION FILED JULY 18, 1912.

1,084,760.

Patented Jan. 20, 1914.

3 SHEETS—SHEET 1.

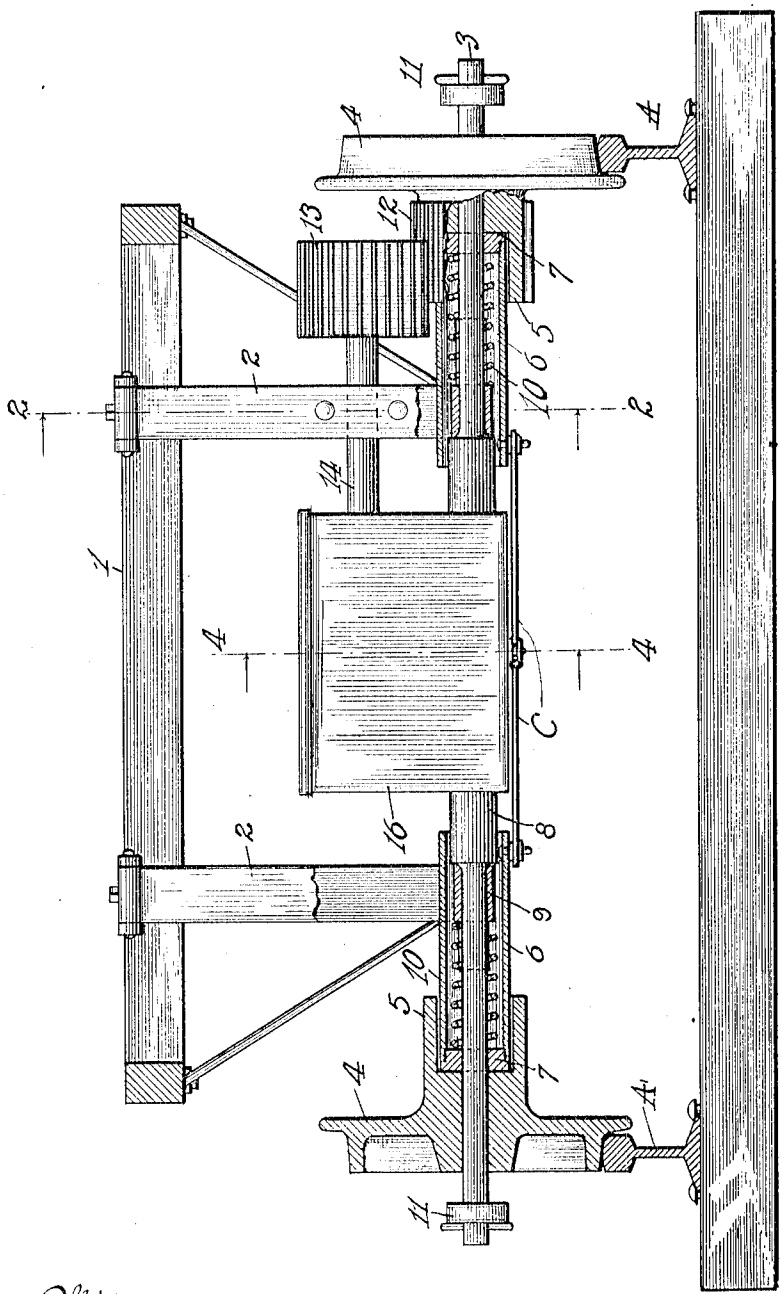


Fig. 1.

Witnesses
A. L. Galeright
L. V. Daughtery.

Inventor
P. M. Stavdal
H. Sanders
Atty.

By

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

P. M. STAVDAL.

TRACK GAGE.

APPLICATION FILED JULY 18, 1912.

1,084,760.

Patented Jan. 20, 1914.

3 SHEETS—SHEET 2.

Fig. 3

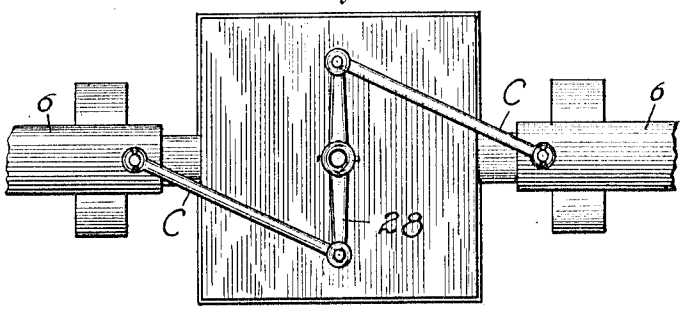
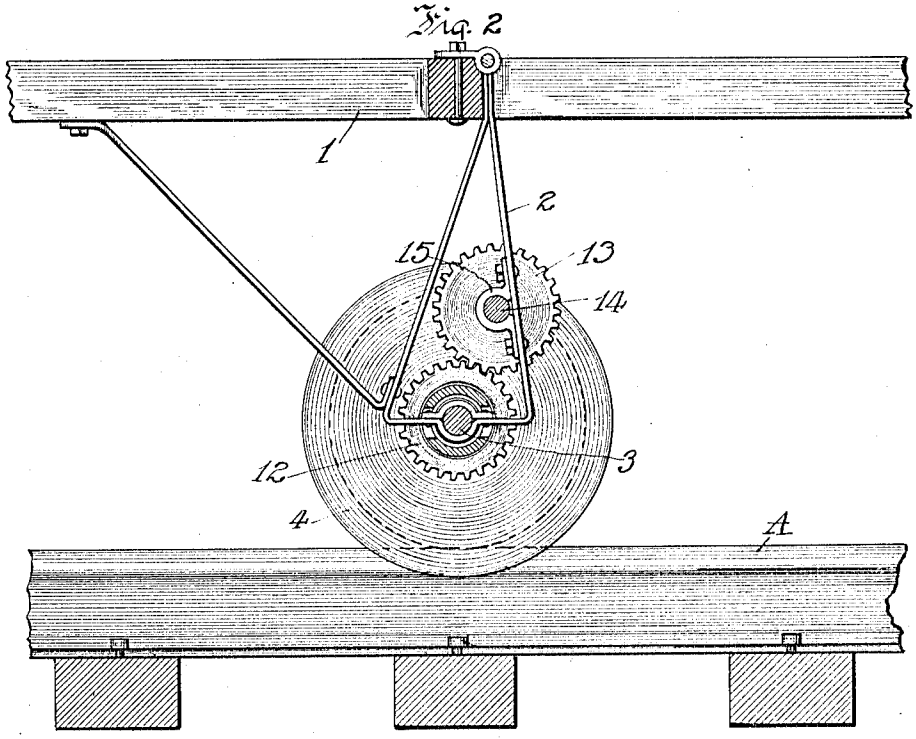


Fig. 2



Witnesses
A. L. Walcutt
L. V. Daughtry.

Inventor
P. M. Stavdal
by Sanders
Atty.

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

P. M. STAVDAL.

TRACK GAGE.

APPLICATION FILED JULY 18, 1912.

1,084,760.

Patented Jan. 20, 1914.

3 SHEETS—SHEET 3.

Fig. 5.

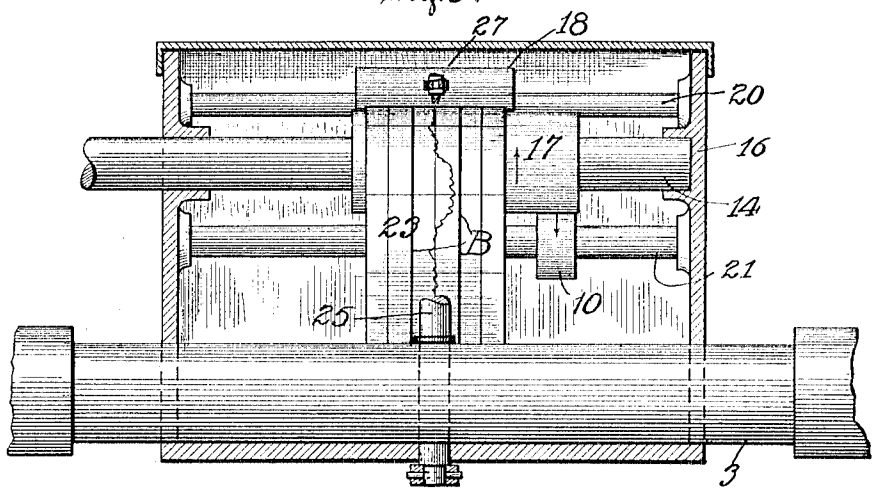
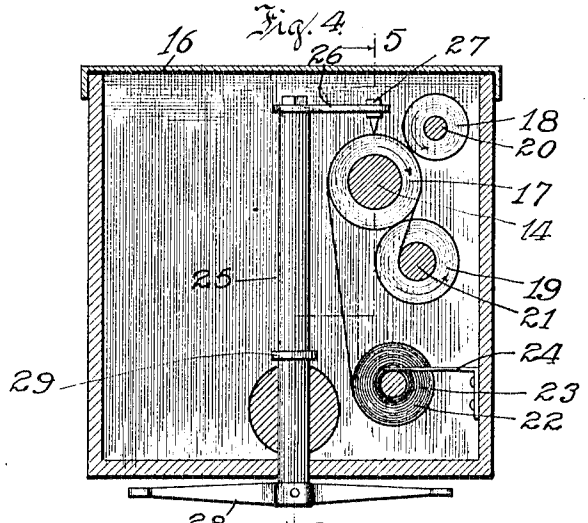


Fig. 4.



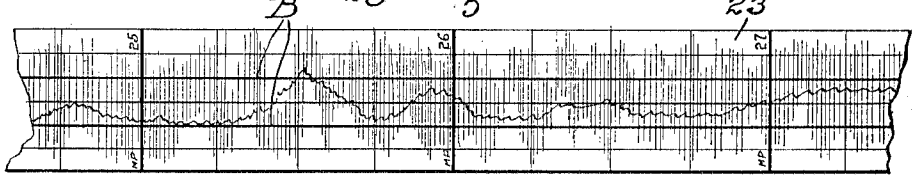


Fig. 6.

Witnesses
A. L. Galvatt
L. V. Daughtry.

Inventor
P. M. Stavdal
H. Sarles
Atty.

By

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

PETER M. STAVDAL, OF NICOLAUS, CALIFORNIA.

TRACK-GAGE.

1,084,760. Specification of Letters Patent. Patented Jan. 20, 1914.

Application filed July 18, 1912. Serial No. 710,244.

To all whom it may concern:

Be it known that I, PETER M. STAVDAL, a subject of the King of Norway, residing at Nicolaus, in the county of Sutter and State of California, have invented certain new and useful Improvements in Track-Gages, of which the following is a specification.

This invention relates to improvements in track gages and its object is to produce an improved device of this class adapted to register automatically the degree of separation or contraction of the rails.

With the foregoing and other objects in view the invention consists in the combination and arrangement of parts to be hereinafter fully described in the following specification, pointed out in the claims and illustrated in the accompanying drawings which form a part of the specification and in which—

Figure 1 is a rear elevation partly in section of my improved track gage. Fig. 2 is a section taken on line 2—2 of Fig. 1. Fig. 3 is a bottom plan view of a portion of the device. Fig. 4 is a section taken on line 4—4 of Fig. 1. Fig. 5 is a section taken on line 5—5 of Fig. 4. Fig. 6 is an enlarged view of the tape employed.

Like reference characters indicate corresponding parts throughout the several views.

My gage comprises a frame 1 which rests upon suitable supports 2 that are mounted upon a stationary axle 3. Upon the axle 3 wheels 4 movable longitudinally thereof are disposed. The wheels are provided with relatively inwardly extending hollow hubs 5 wherein one end of sleeves 6 provided with apertured caps 7 are disposed and which sleeves extend longitudinally of the stationary axle 3. The central portion of the axle 3 is enlarged as at 8 and provided with collars 9 adjacent the ends of the said enlargement against which one end of springs 10 abut, the opposite end of the said springs resting against the caps 7 within the sleeves. This construction permits the wheels to ride rails that are spread or contracted out of their normal position. Upon either end of the axle 3 stop-blocks 11 are provided which prevent the wheels running off the axle.

One hub 5 of one wheel 4 is toothed upon its outer periphery as at 12 for engagement with a toothed wheel 13 carried upon one end of a shaft 14 which is supported in a bearing 15 secured to one of the supports 2 and this shaft extends into a housing 16 in which it also obtains a bearing. Within the said housing a spool 17 is disposed upon the shaft 14 and this spool is in contact with spools 18 and 19 both made of flexible material and mounted, respectively, upon shafts 20 and 21 journaled in the sides of the housing. 22 is another shaft journaled in the sides of the housing 16 and upon which a spool of tape 23 is disposed and against which a spring 24 presses to insure an even unwind of the said tape which is passed from the shaft 22 over the spool 17 between the same and the spool 18 and about the shaft 21 whereon it is wound by rotation of the shaft 14.

25 is a shaft to one end of which is secured an arm 26 that carries a stylus 27 adapted to mark the tape 23 as it is passed beneath the same over the spool 17. The shaft 25 passes through the axle 3 and through the housing 16 and carries a lever 28 at its lower extremity, the connecting rods C of which connect with the sleeves 6, 6 of the gage. The shaft 25 is provided with a collar 29 adjacent the axle 3 which in connection with the lever 28 regulates the movement of the shaft 25 within the housing.

Operation: Rotation of the wheels 4, 4 upon the axle 3 rotates the hubs 5 one of which is toothed and so engages with and rotates the wheel 13 and its shaft 14 which rotates the spool 17 that through friction with the spools 18 and 19 causes them to rotate thus winding the tape 23 upon shaft 21 and unwinding it from shaft 22. The distance between the rails A determines the distance between the wheels 4 and the sleeves 6 to which the lever 28 is connected which is connected to the shaft 25 that carries the stylus 27 that marks the tape 23. Contraction of the distance between the rails will force one wheel 4 toward the other against the tension of the springs 10 and will cause slight lateral movement of the entire mechanism with the exception of one wheel and this contraction will cause the markings of the stylus 27 upon the tape to approach one of the danger lines B on the tape. A spreading of the rails will have the reverse effect and cause the stylus to record near or upon or beyond the opposite danger line B.

What is claimed is:—

1. In combination, a frame mounted upon a stationary axle, wheels movable longitudinally of said axle, one of the said wheels being toothed, sleeves mounted upon the said sta-

tionary axle terminally engaging within the said wheels, flexible means disposed within said sleeves for keeping the same in position, a housing secured upon the stationary axle, a shaft passing through said housing and the said stationary axle, a lever connecting the said shaft and the said sleeves, tape-carrying means disposed within said housing, power transmission mechanism connecting the said tape-carrying means and the aforesaid toothed wheel, a tape secured to said tape-carrying means and a stylus carried by the last named shaft for contact with the said tape.

2. The combination with a frame mounted upon a stationary axle provided with collars and with terminal wheel-stops, of wheels, one of which is toothed, disposed upon said axle, sleeves formed with caps and disposed upon said axle abutting said wheels and encircling the said collars, springs disposed within said sleeves between the caps thereof and the said collars, a housing secured upon the stationary axle, a shaft passing through said housing and the said stationary axle, a lever connecting the said shaft and the said sleeves, tape-carrying means disposed within said housing, power transmission mechanism connecting the said tape-carrying means and the aforesaid toothed wheel, a tape secured to said tape-carrying means and a stylus carried by the last named shaft for contact with the said tape.

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

PETER M. STAVDAL.

Witnesses:
B. DOCKSTADER,
L. MORGAN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."