

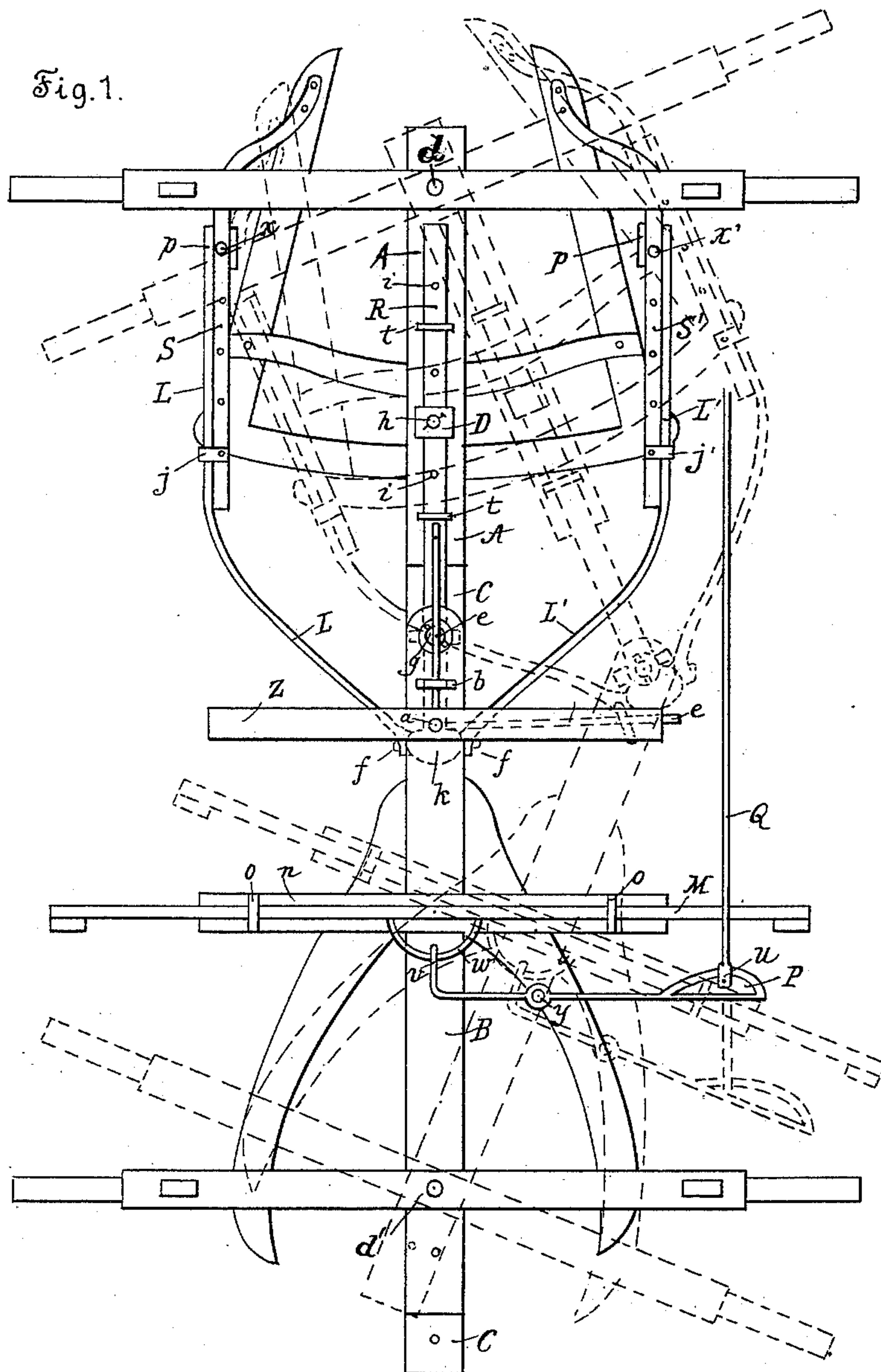
(No Model.)

2 Sheets—Sheet 1.

H. T. GOODRICH.  
RUNNING GEAR FOR VEHICLES.

No. 483,717.

Patented Oct. 4, 1892.



Witnesses:

Chas. E. Raabe,  
R. N. McCornick.

Inventor:

Henry T. Goodrich,  
by W. V. Tefft, Atty.

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Fig. 2

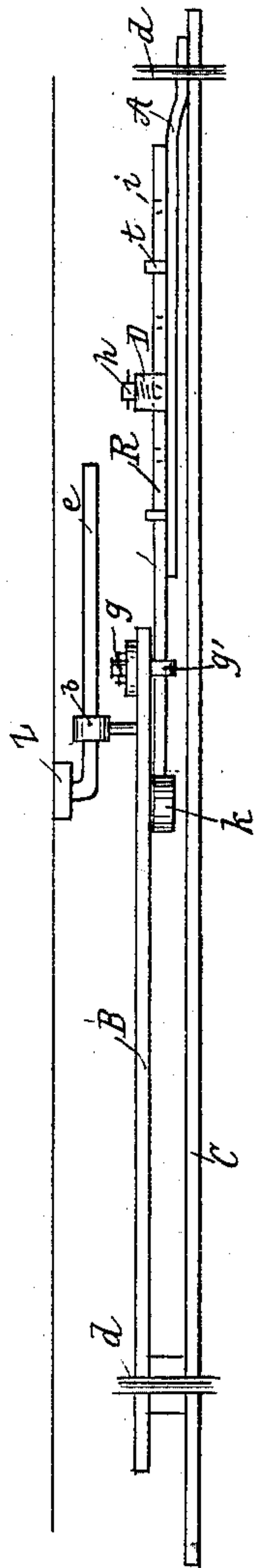
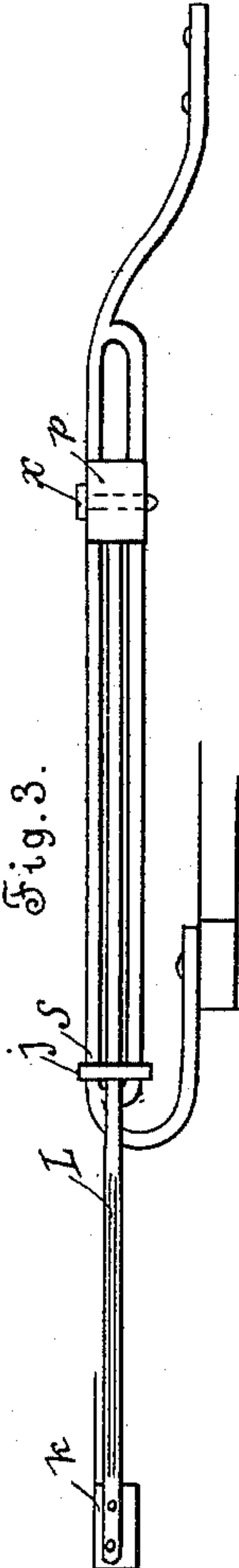


Fig. 3.



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# UNITED STATES PATENT OFFICE.

HENRY T. GOODRICH, OF PEORIA, ILLINOIS.

## RUNNING-GEAR FOR VEHICLES.

SPECIFICATION forming part of Letters Patent No. 483,717, dated October 4, 1892.

Application filed May 6, 1892. Serial No. 432,002. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY T. GOODRICH, a citizen of the United States, residing at Peoria, in the county of Peoria and State of Illinois, have invented certain new and useful Improvements in Running-Gear for Vehicles; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to certain new and useful improvements in running-gear for vehicles; and it consists, essentially, of a combination of parts whereby a running-gear is provided, being simple in construction and very effective for purpose designed.

That my invention may be more fully understood reference may be had to the accompanying drawings, in which—

Figure 1 is a plan view of a running-gear for vehicles constructed in accordance with my invention and the pivotal play of the parts being represented in dotted lines. Fig. 2 is a side view showing the relative working positions of the various parts. Fig. 3 is a detailed view showing side braces.

The front axle of the vehicle is here shown provided with the usual hounds, tongue, bolster, and reach with the rear ends of the hounds provided with suitable cross-ties.

C is the main reach connecting the axles, the same being pivoted to the respective axles.

A is a supplemental reach pivoted with the main reach by means of the king-bolt *d* to the front axle.

R is a tongue-like piece clamped to the supplemental reach A by suitable means and is formed at its rear end with the head *k*.

B is a supplemental reach pivoted with the main reach to the rear axle by means of the king-bolt *d'*.

*g g'* is a loop-headed bolt properly pivoted upon the supplemental reach B, with the loop thereof carrying the headed extension R.

Z is a cross-piece designed to be secured to the bottom of the wagon-bed and having pivoted at its middle portion the rod *e*, which passes through the eyebolt *b*, which is secured to the forward end of supplemental reach B.

S S' are plates or guides properly secured to the hounds and designed to carry the sliding rods L L', the said sliding rods being provided with the sliding block *p* and pins *x x'* for holding the said blocks in position with the opposite extremity of the rods secured to the head *k* of the headed piece R, as at *f f*.

M is a brake provided with suitable friction-blocks and carried upon a framework *n*, provided with the loops *o o* for the brake to slide backward and forward within and having attached at its central portion the circle iron *w*, to which is loosely attached by means of an eye the angle-rod *v*, pivoted, as at *y*, and provided with the loop P at its outer extremity and having connected therein by means of an eye the forwardly-extending rod Q, designed to connect with suitable levers for operating the brake.

The operation of the device is very simple and apparent. When the wagon is desired to be turned, the turning of the tongue will shift the various parts into positions, as shown in Fig. 1 in dotted lines, thus providing for the turning of the same with the wheels thereof at all times tracking.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

In running-gear for vehicles, the combination of the main reach pivotally attached to the front and adjustably connected to the rear axle, front hounds, sliding plates S S', sliding rods L L', provided with sliding blocks *p p* at the forward rods L L', with bearing and curved to connect with the head *k* of the piece R, and supplemental reaches A B, connected by means of the headed piece R, secured to the supplemental reach A and bearing through the eyebolt *g g* in the forward end of the supplemental reach B, the main reach C, all the said reaches being pivotally or adjustably connected with the axles, all substantially as described and set forth.

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

HENRY T. GOODRICH:

Witnesses:

R. N. MCCORMICK,  
JOSIE TEFFT.