

(No Model.)

J. McMURTRY & T. J. PILCHER.

MECHANICAL TRAIN DISPATCHER.

No. 262,903.

Patented Aug. 15, 1882.

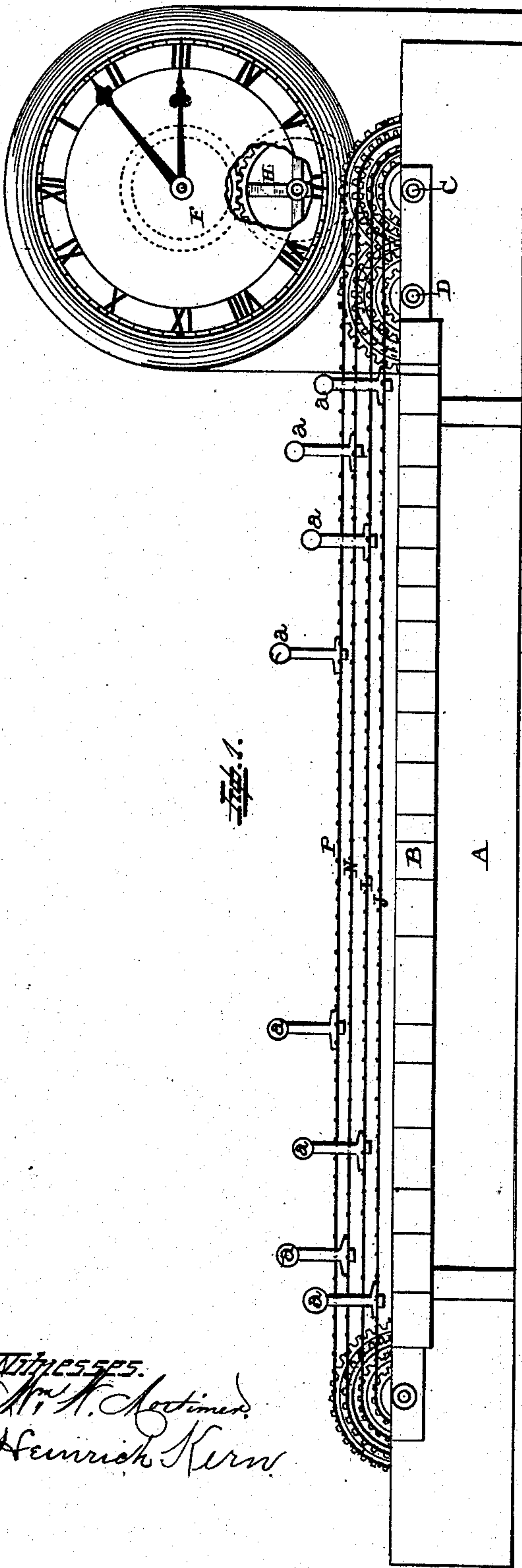


Fig. 1.

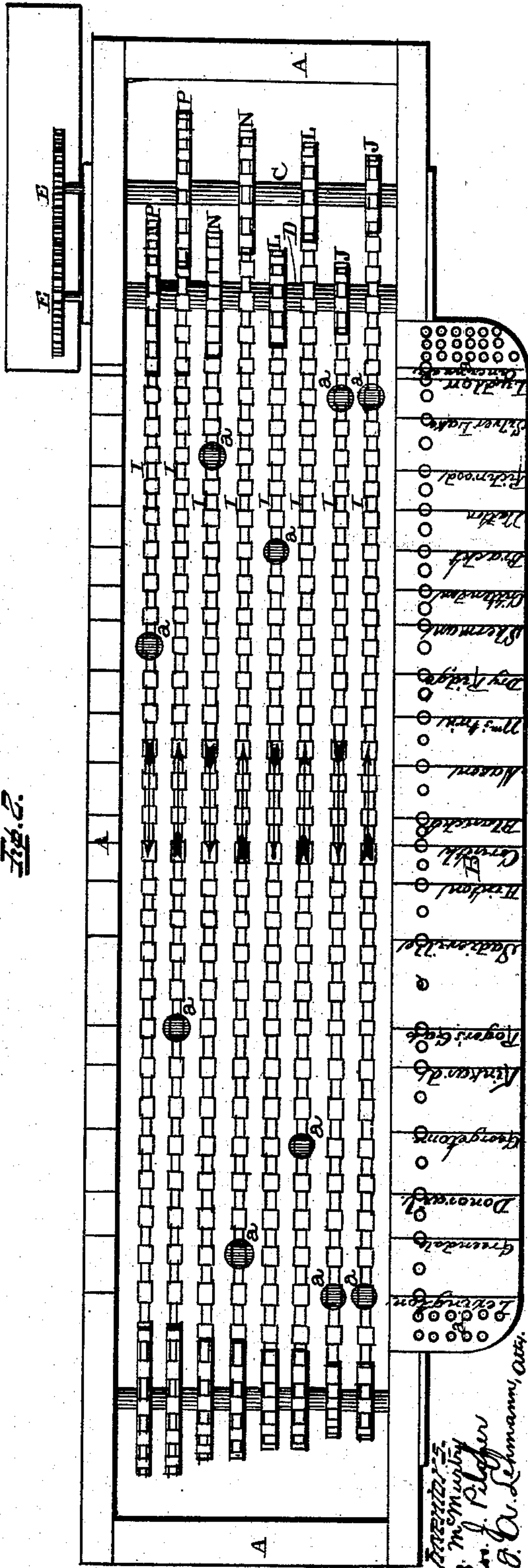


Fig. 2.

Witnesses.  
H. H. McArthur  
Heinrich Kern

Inventors:  
J. McMurry  
T. J. Pilcher  
per G. W. Lehmann, atty.



# UNITED STATES PATENT OFFICE.

JOHN McMURTRY AND THOMAS J. PILCHER, OF LEXINGTON, KENTUCKY.

## MECHANICAL TRAIN-DISPATCHER.

SPECIFICATION forming part of Letters Patent No. 262,903, dated August 15, 1882.

Application filed May 10, 1882. (No model.)

*To all whom it may concern:*

Be it known that we, JOHN McMURTRY and THOMAS J. PILCHER, of Lexington, in the county of Fayette and State of Kentucky, have  
5 invented certain new and useful Improvements in Train-Dispatchers; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will  
enable others skilled in the art to which it pertains to make and use it, reference being had  
10 to the accompanying drawings, which form a part of this specification.

Our invention relates to an improvement in train-dispatchers; and it consists in the combination of a suitable operating mechanism  
15 and a number of chains, bands, or other equivalents, which move at different rates of speed, and which carry with them suitable devices representing the trains, so that the dispatcher can  
20 see at a glance where each train is upon the road, as will be more fully described hereinafter.

The object of our invention is to provide a mechanical contrivance by which the movements of all of the trains moving upon the  
25 road can be kept, as it were, under the eye of the train-dispatcher, and thus show him where each one is without his having to rely upon his memory, and thus run the risk of making  
30 mistakes.

Figure 1 is a side elevation of our invention. Fig. 2 is a plan view of the same.

A represents a suitable rectangular frame-work, and B a board or apron which is attached  
35 thereto, and which is provided with a number of perforations at each of its ends, so as to hold the pins *a*, and with a number of perforations extending from one end to the other, and in which the pins *a* are to be placed for  
40 the purpose of representing the different stations along the road. This apron is not absolutely necessary, because the holes may be made in the frame instead.

In order to prevent any possibility of confusion, the names of the different stations may  
45 be placed upon both sides of the frame or upon one side of the frame and upon the apron. Where the apron is made for no particular line of road, the row of holes to indicate the  
50 stations may be made along in close proximity to each other, and then the pins will be stuck

only in those holes which represent the stations along the road in which the train-dispatcher is to be used.

At one end of the frame are journaled the  
55 driving-shaft C and the counter-shaft D, which are connected together, and made to revolve at the same rate of speed by means of the cog-wheels E, but in different directions. The  
clock F is here shown as a motive power for  
60 driving these two shafts; but we do not limit ourselves to this or any other precise mechanism for this purpose. The clock is one of the most convenient forms of motor, because it  
shows the time and can always be consulted  
65 by the person who has the dispatching of the trains, and will be found preferable in many respects for this purpose. The wheel H, which  
meshes with the wheels upon the ends of the  
driving-shafts, meshes with the minute-wheel  
70 of the clock, and thus causes each shaft to turn one revolution in an hour.

Upon each one of the shafts will be secured a number of wheels which will operate the chains, bands, belts, or other equivalents I,  
75 which are to indicate the speed and the movements of the different trains. For instance, there will be two wheels, J, having but fifteen cogs or teeth, and which will be used to represent the movements of the freight-trains,  
80 which are running at a rate of about fifteen miles an hour. Next to these two wheels will be the two wheels L, which have twenty teeth, and which will be used to indicate the speed and the whereabouts of the extra freight-trains,  
85 which are running at a speed of about twenty miles an hour. Next to these two wheels L will be the two wheels N, having thirty cogs, which are used as indicators for the accommodation-train, and then there are two wheels,  
90 P, having forty cogs, which are used as indicators for the express-trains. It will be seen that the wheels upon each shaft revolve in the opposite direction, and of course move their  
corresponding belts or chains in opposite  
95 directions, and as blocks or other devices will be placed in each chain or belt to indicate the movements of the trains upon it the dispatcher has but to watch the movement of these blocks  
to see where each train is or should be. Different-colored blocks and blocks of different  
100 shapes may of course be used to indicate the



different kinds of trains. As fast as the trains arrive at any one station the telegraph-operator notifies the one who is the dispatcher of the trains of their arrival, and this person can correct the positions of the blocks as are necessary. Should a train not arrive at the station upon time, the telegraph-operator will notify the person who is dispatching the trains of the delay, and then this person can notify the other trains along the road coming in both directions, so as to prevent a collision. When the train reaches the end of the road or passes beyond the control of the person who dispatches the train he will take the block representing that train off the belt or chain and place it in one of the series of holes at the end of the apron.

In order to enable the dispatcher to keep the most perfect and accurate account of all the trains on the road, there will be provided a number of wheels which can be readily secured upon the shafts, so as to accommodate the speed at which the train is moving. The shafts for this purpose will be made readily removable from the train in any suitable manner, and the different wheels will be fastened to their shafts by means of set-screws or other devices which will allow them to be readily detached.

The great advantage of our invention consists in the fact that nothing is left to the memory of the dispatcher, and hence there is

no danger of any collision as long as he watches the movement of the different blocks upon their respective bands, chains, or equivalent devices which move the blocks along. Of course there will be a number of bands or chains in proportion to the number of tracks upon the railroad where the dispatcher is to be used.

We do not limit ourselves to any details of construction, for this may be varied without departing from the spirit of our invention.

Having thus described our invention, we claim—

1. The combination of a suitable motor, driving-shafts provided with wheels, and bands or chains which carry the blocks or other devices which indicate the trains upon the road, substantially as shown.

2. The combination of a motor, two driving-shafts which run in opposite directions, and which are provided with a number of wheels of different sizes, and suitable blocks or chains which are operated by the wheels, and which belts or chains carry blocks or other devices to indicate the different movements of the trains, substantially as set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

JOHN McMURTRY.

THOMAS J. PILCHER.

Witnesses:

ROBT. H. KING,

WALTER SCOTT.