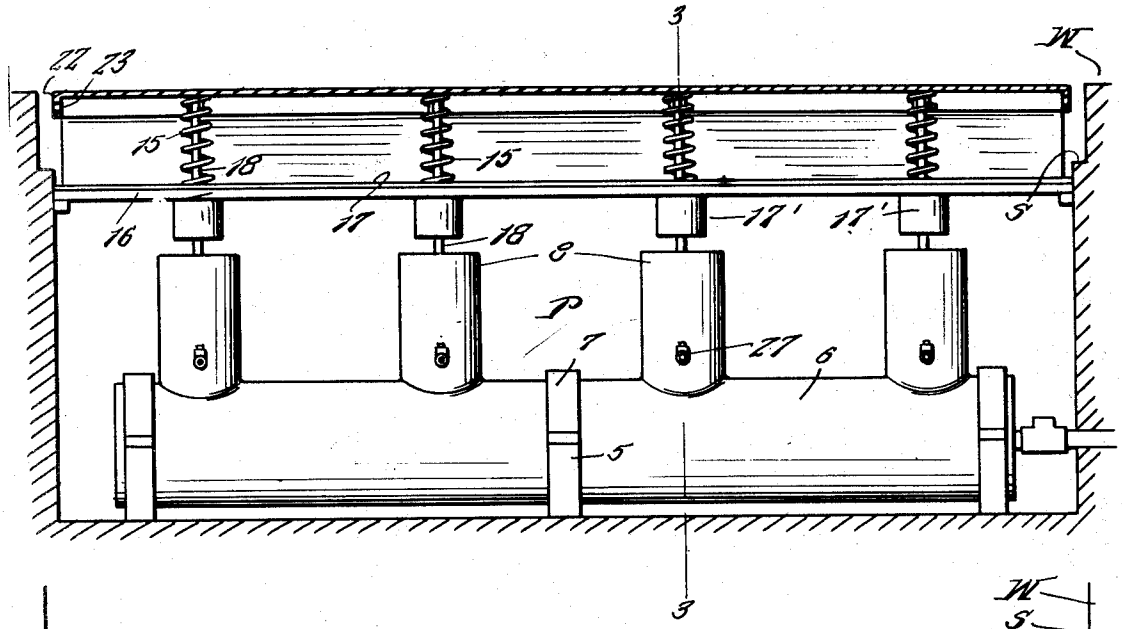
July 22, 1930. O. B. AKERS 1,771,200

TRAFFIC AIR COMPRESSOR

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Fig. 1.



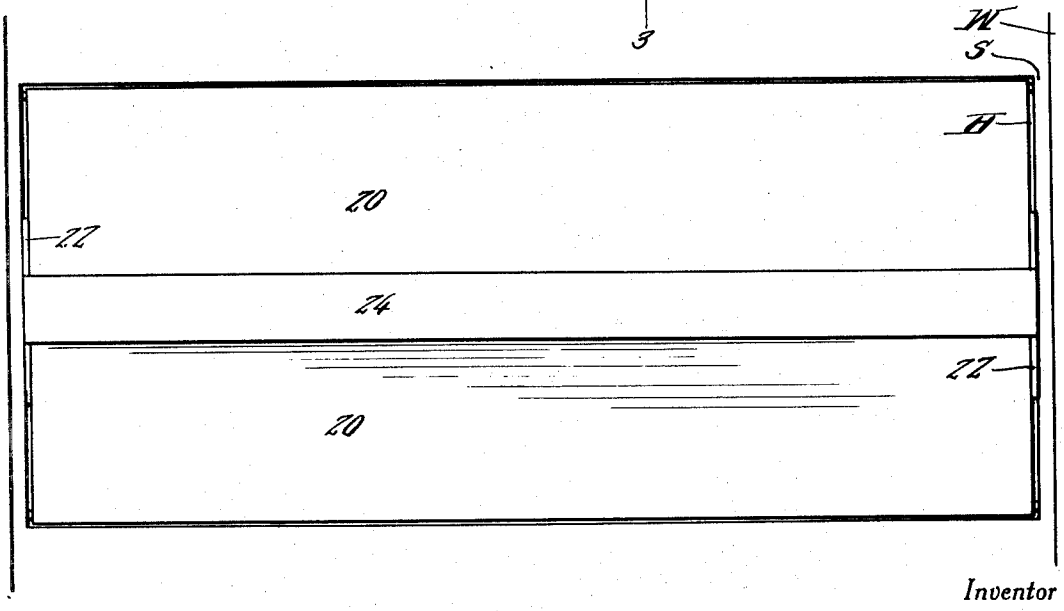


Fig. 2.

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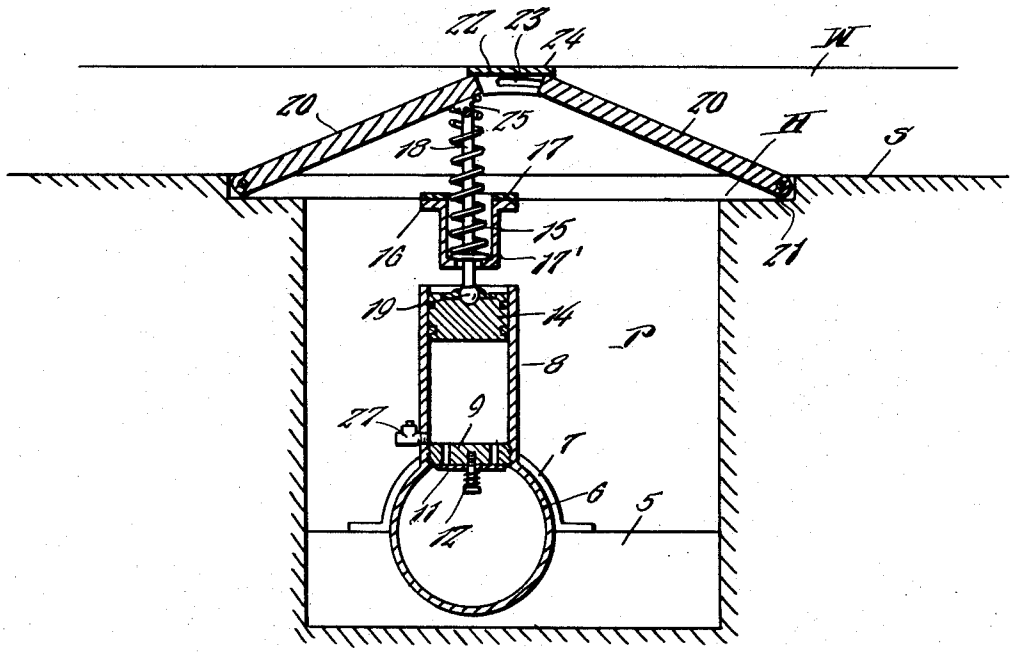
Attorney

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TRAFFIC AIR COMPRESSOR

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Fig. 3.



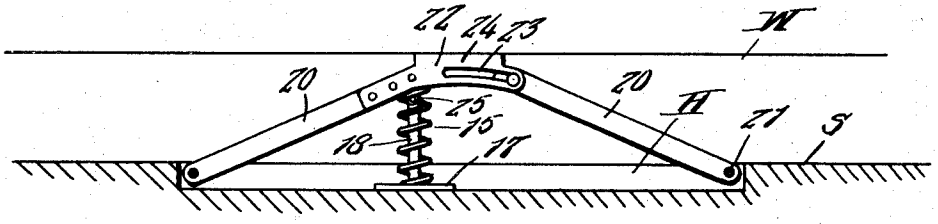


Fig. 4.

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UNITED STATES PATENT OFFICE

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TRAFFIC AIR COMPRESSOR

Application filed October 24, 1929. Serial No. 402,210.

The present invention relates to an air compressor and has for its prime object to provide means for compressing air by utilizing the ordinary traffic on the street.

Another very important object of the invention resides in the provision of a movable platform adapted to be run over by automobiles and other vehicles so as to be depressed and the motion thus caused being utilized for compressing air in a storage tank to be used as desired.

A still further important object of the invention resides in the provision of a traffic air compressing mechanism of this nature which is simple in its construction, comparatively inexpensive to manufacture, strong and durable, thoroughly efficient and reliable in use and otherwise well adapted to the purpose for which it is desired.

With the above and numerous other objects in view as will appear as the description proceeds, the invention resides in certain novel features of construction, and in the combination and arrangement of parts as will be hereinafter more fully described and claimed.

In the drawing:

Figure 1 is a transverse vertical section through a street showing my improved traffic compressor mounted in a pit,

Figure 2 is a top plan view of the mechanism,

Figure 3 is a sectional view taken substantially on the line 3—3 of Figure 1, and

Figure 4 is an end elevation of the platform structure.

Referring to the drawing in detail it will be seen that the letter S denotes a street and the letter W denotes side walls. In the street S is a pit P at the top of which is a pair of shoulders H. Blocks 5 are mounted in the bottom of the pit and have recesses in which rests storage tank 6 being held securely to the block by means of straps 7 or the like. A plurality of cylinders 8 rise from the storage tank 6 and have apertured heads 9 in their bottom ends, the apertures being normally closed by plates 11 held in place by springs 12 so that the plates may open downwardly.

A guide structure 16 extends along the top of the pit and has slots 17 formed therein, said structure 16 at the slots 17 being formed to provide downwardly depending cylindrical cup shaped members 17′ communicating with the slots, and disposed, one above the upper end of each of the cylinders 8.

A platform structure comprises a pair of side panels 20—20 pivotally mounted on the shoulders 14 as at 21. Links 22 are secured to the sides of one panel 20 and have pin and slot connections 23 with an adjacent side of the other panel 20, and these links are connected by a plate 24 disposed over the space normally provided between the free edges of the panels 20.

Pistons 14 are slidably mounted in the cylinders, and pitmen 18 have ball and socket connections 19 with the pistons. The pitmen 18 extend upwardly through an opening in the bottom of the cups 17′ and through the corresponding slots 17, and at their upper ends are pivotally engaged with one of the panels 20 as is indicated at 25. Springs 15 are convoluted about the pitmen 18 and are workable in the slots 17.

At their lower ends, the springs 15 are receivable in the cups 17′ the inner ends of the springs bearing against the bottoms of the cups, and the upper ends of the springs impinging against the said one panel 20 at the pivot point 25 for normally holding the pistons 14 upwardly within their cylinders, so that the panels 20 are disposed in that position shown to advantage in Figure 3 with the plate 24 at the level of the side walls W.

Therefore as a vehicle moves along the street and rides up on either side of the platform said panel 20 will be forced downwardly thereby forcing the piston 14 downwardly and forcing air from the cylinders through the apertured head, into the storage tank 6.

After the vehicle has passed by, the spring 15 will return the parts to normal position causing the pistons to suck air into the cylinders through check valves 27. In this way it will be seen that air may be compressed and stored in the tank in an inexpensive man-

ner and, of course, may be used in any desirable way.

It is thought that the construction, operation, utility and advantages of this invention will now be quite apparent to those skilled in this art without a more detailed description thereof.

The present embodiment of the invention has been disclosed in considerable detail merely for the purposes of exemplification since in actual practice it attains the features of advantage enumerated as desirable in the statement of the invention and the above description.

It will be apparent that changes in the details of construction, and in the combination and arrangement of parts may be resorted to without departing from the spirit or scope of the invention as hereinafter claimed or sacrificing any of its advantages.

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

1. In an air compressing mechanism of the class described, the combination of a cylinder, a piston in the cylinder, a connecting rod engaged with the piston, a spring normally holding the piston upwardly, a pivotally mounted panel pivotally engaged with the connecting rod, a second pivotally mounted panel, links connecting the free edges of the panel, a plate across the link.

2. In an air compressing mechanism of the class described, the combination of a cylinder, a piston in the cylinder, a connecting rod engaged with the piston, a spring normally holding the piston upwardly, a pivotally mounted panel pivotally engaged with the connecting rod, a second pivotally mounted panel, links connecting the free edges of the panel, a plate across the links, said links being fixed to one panel and having pin and slot connections with the other panel.

3. In an air compressing mechanism of the class described, the combination of a cylinder, a piston in the cylinder, a pivotally mounted panel, a second pivotally mounted panel, plates connecting the free edges of the panels and providing a pivotal connection between said panels, a guide structure, said guide structure embodying a cup depending therefrom for disposition above said cylinder, a connecting rod engaged with the piston and extending upwardly through said cup and said guide structure, means for pivotally connecting the upper end of said connecting rod with one of said panels, and a spring convoluted about said connecting rod, one end of said spring being receivable in the cup, and the opposite end of said spring impinging against said one panel for normally holding said piston upwardly within its cylinder.

In testimony whereof I affix my signature.

OSCAR BALARD AKERS.