F. KLINGENSMITH.

APPARATUS FOR USE IN WASHING VEHICLES.

APPLICATION FILED SEPT. 19, 1914.

1,148,690.

Patented Aug. 3, 1915.

2 SHEETS—SHEET 1.

Fig. 1.

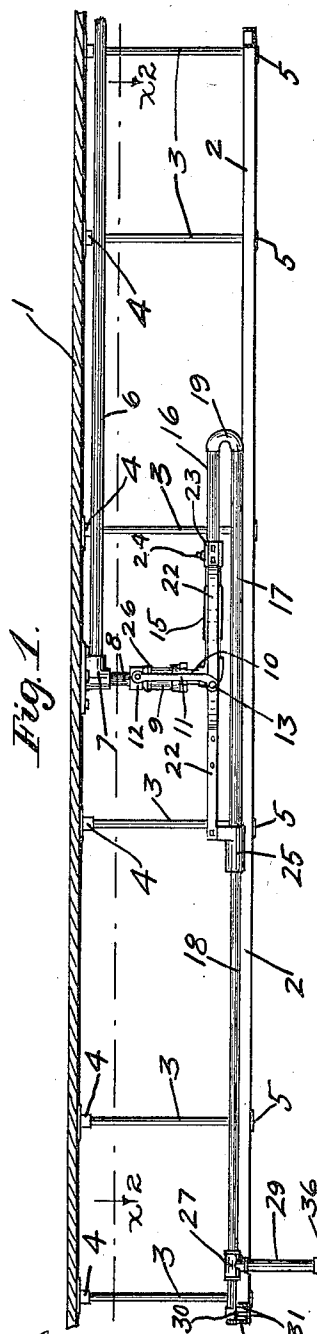
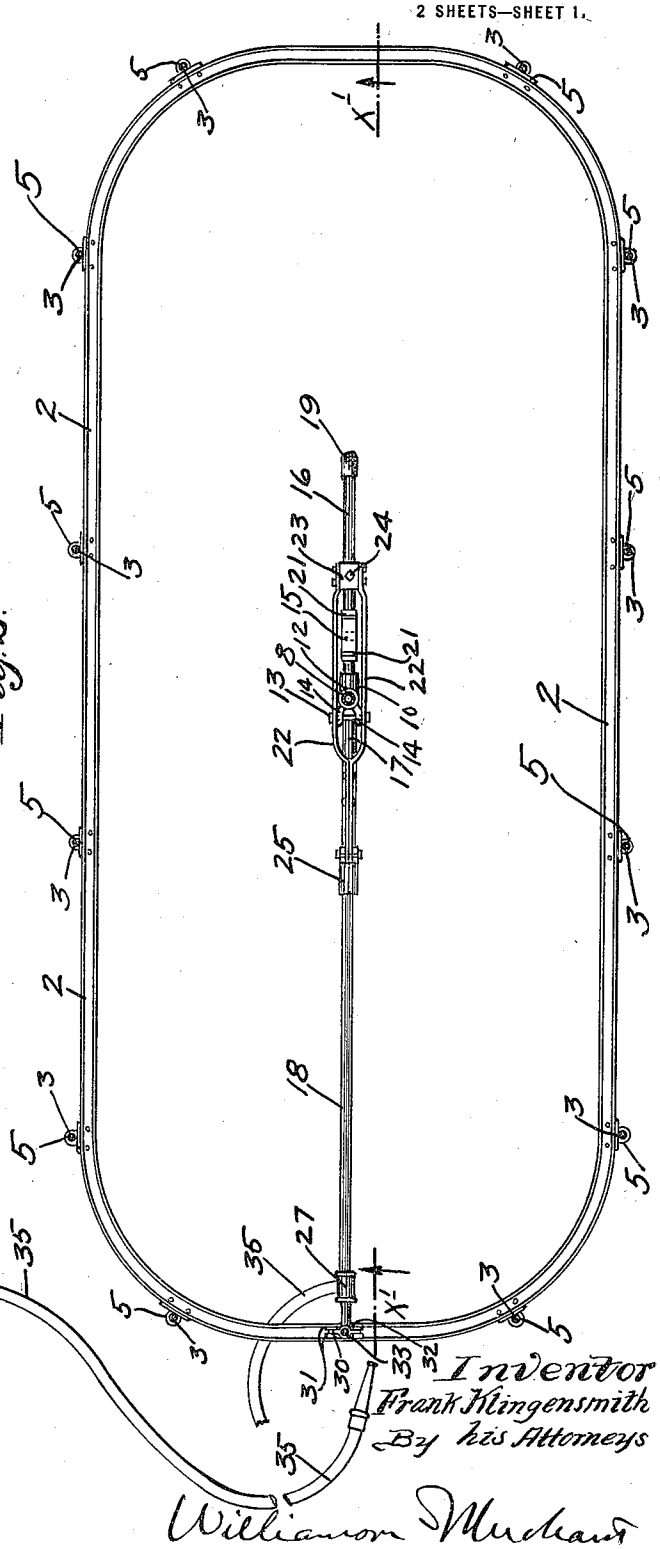


Fig. 2.



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2 SHEETS—SHEET 2.

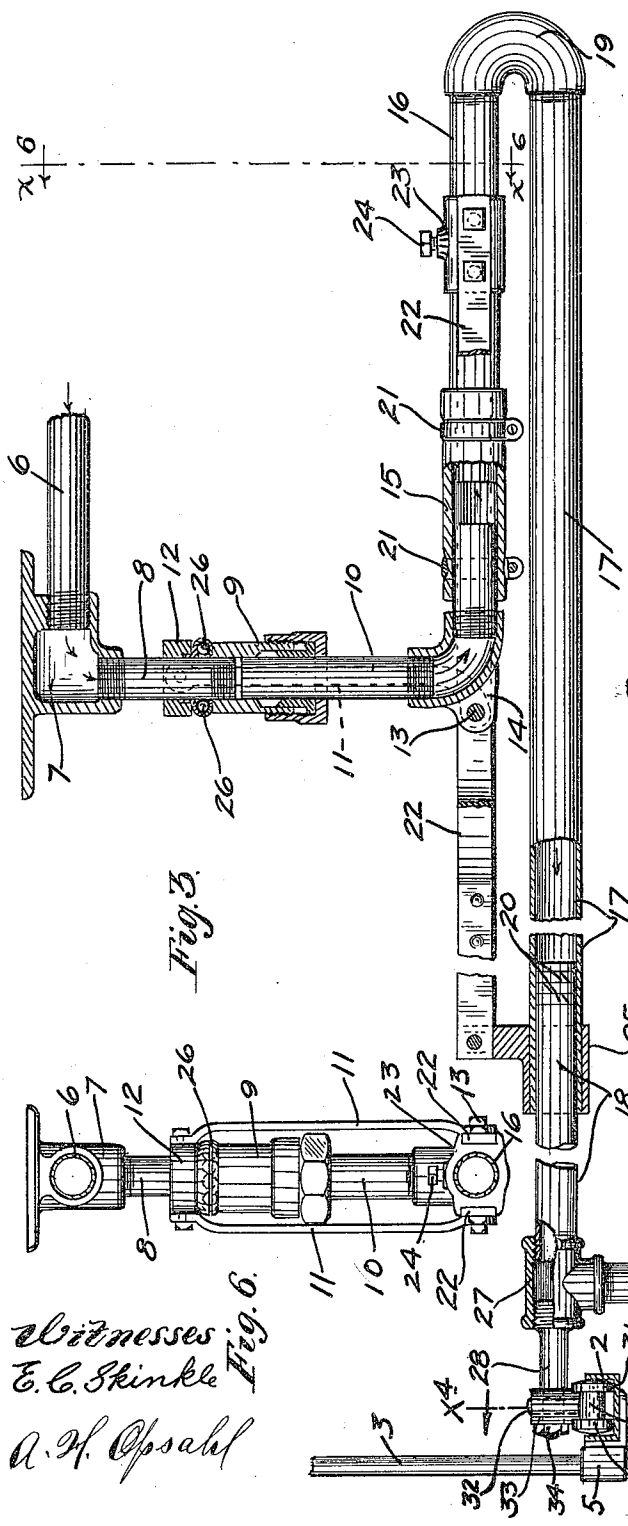


Fig. 3.

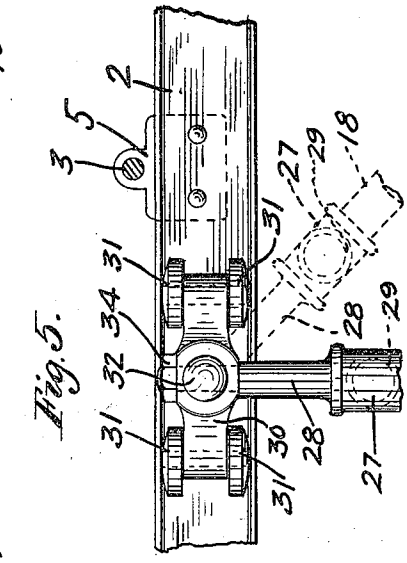


Fig. 5.

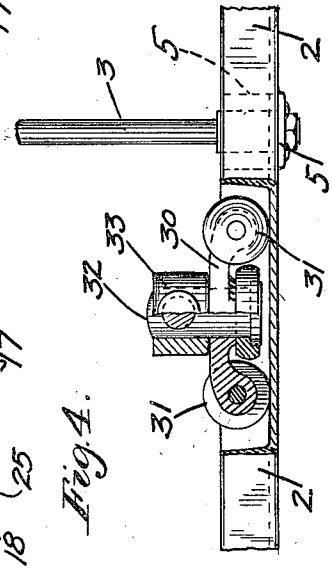


Fig. 4.

Fig. 6.

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UNITED STATES PATENT OFFICE.

FRANK KLINGENSMITH, OF ST. PAUL, MINNESOTA.

APPARATUS FOR USE IN WASHING VEHICLES.

1,148,690. Specification of Letters Patent. Patented Aug. 3, 1915.

Application filed September 19, 1914. Serial No. 862,460.

To all whom it may concern:

Be it known that I, FRANK KLINGENSMITH, citizen of the United States, residing at St. Paul, in the county of Ramsey and State of Minnesota, have invented certain new and useful Improvements in Apparatus for Use in Washing Vehicles; and I 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 appertains to make and use the same.

My invention has for its object to provide an improved apparatus for use in washing vehicles; and, to this end, it consists of the novel devices and combinations of devices hereinafter described and defined in the claims.

In the accompanying drawings, which illustrate the invention, like characters indicate like parts throughout the several views.

Referring to the drawings, Figure 1 is a view principally in side elevation, showing the improved apparatus suspended from a ceiling, some parts being sectioned on the line x^1 x^1 of Fig. 2; Fig. 2 is a horizontal section taken on the line x^2 x^2 of Fig. 1; Fig. 3 is a view partly in side elevation and partly in longitudinal vertical section, showing the improved apparatus on an enlarged scale, with some parts broken away; Fig. 4 is a detail view, partly in side elevation and partly in vertical section, taken on the line x^4 x^4 of Fig. 3, on an enlarged scale; Fig. 5 is a plan view of the parts shown in Fig. 4, with some parts shown in different positions by means of dotted lines; and Fig. 6 is a view, partly in elevation and partly in vertical section, taken on the line x^6 x^6 of Fig. 3.

The numeral 1 indicates the ceiling of a garage, barn, or other building, in which the improved apparatus is installed. An oblong, endless channel track 2 is suspended from the ceiling 1 by a multiplicity of rods 3. The upper ends of these rods 3 are attached to sockets 4, secured to the ceiling 1, by screws, or otherwise, and the lower ends thereof are attached to brackets 5, secured to the web of the track 2 and hold said track off-set inward to one side of the rods 3. The length of the rods 3 is sufficient to hold the track 2 in a position entirely above the top of the vehicle positioned thereunder to be washed.

The water supply pipe 6 is arranged to deliver into a supply head 7, secured to the ceiling 1 by screws, or other suitable means, and located at the central point within the track 2. Screwed into the under side of the supply head 7 is a depending nipple 8, having on its lower end a stuffing box 9. The vertical leg of an L-shaped pipe 10 is swiveled in this stuffing box 9 and is held against endwise removal therefrom by a pair of strap bars 11. These bars are attached at their upper ends to a collar 12 on the nipple 8, and at their lower ends to a horizontal pivot bolt 13, mounted in lugs 14, integral with the elbow of the pipe 10. Obviously, these bars 11 permit free rotary movement of the pipe 10 in the stuffing box 9, but hold the same against endwise removal therefrom.

Attached to the horizontal leg of the pipe 10, by a flexible joint 15, is a horizontal feed pipe 16, having a return leg, comprising a relatively fixed section 17 and a relatively movable section 18, the latter being telescopically mounted within the former. The leg section 17 directly underlies the feed pipe 16 and is connected thereto by a U-shaped coupling 19. Packing rings 20, on the inner end of the leg section 18 afford a watertight joint between the two leg sections. As shown, the flexible joint 15 is preferably in the form of a short hose section into which the adjacent ends of the pipes 10 and 16 are telescoped and secured thereto by split clamps 21. The purpose of this flexible joint 15 is to allow the feed pipe 16 and its return leg to freely swing horizontally when the vertical leg of the pipe 10 does not extend in a true right angle thereto. Owing to irregularities in ceilings it is sometimes difficult to mount the track and pipe 10 in true positions to prevent binding of the feed pipe during its horizontal swinging movement.

The feed pipe 16 is supported from the pipe 10, for a limited vertical movement, with respect thereto, by a pair of horizontal laterally spaced bars 22, intermediately pivoted on the bolt 13. The bars 22 are bolted at one end to a collar 23, telescoped onto the feed pipe 16 and adjustably secured thereto by a set bolt 24. The other ends of said bars

are brought together, riveted, and rigidly secured to a bifurcated lug on a collar 25, on the outer end of the leg section 17. Obviously, the bars 21 and collar 25 also support the free end of the leg section 17 and prevent the same from sagging. The collar 12 is supported on the stuffing box 9 and an antifriction bearing 26 is interposed therebetween to cause said collar to freely rotate during the horizontal swinging movement of the feed pipe.

On the outer end of the movable leg section 18 is a T-coupling 27, into which is screwed a stem 28, axially alined with said leg section, and a depending nipple 29. Mounted to run in the channel track 2 is a small truck, comprising a body 30 and two pairs of wheels 31, spaced one in advance of the other and journaled thereon. Loosely journaled in the truck body 30 is an upwardly projecting stud 32, having mounted on its upper end a collar 33. Said collar and stud have axially alined horizontal perforations, through which the reduced outer end of the stem 28 is inserted and secured against removal therefrom by a nut 34. Obviously, this connection between the stud and truck permits free horizontal swinging movement of the feed pipe and free oscillatory movement of the leg section 18. A nozzle-equipped hose 35 is attached to the nipple 29 by a split clamp 36.

From the foregoing description it is evident that the wheeled truck holds the leg section 18 against endwise movement with respect thereto, thereby always keeping the receiving end of the hose 35 in a position to closely follow within the track 2. By making the track oblong, an automobile may be placed thereunder in such a position that the hose may be swung, when in a substantially vertical position, completely around the automobile without striking the same. This is particularly desirable when washing limousines, to prevent striking the corners thereof and thereby marring the same. By this arrangement, it is also evident that a relatively short hose 35 may be used. In place of the packing rings 20, it is, of course, understood, that a stuffing box, or any other suitable means, may be provided to prevent leakage between the two leg sections.

What I claim is:

1. The combination with an oblong overhead track and a traveler mounted to run thereon, of a supply pipe, a longitudinally extensible feed pipe, a swivel joint connecting said feed pipe to said supply pipe, for horizontal swinging movement, the delivery end of said feed pipe being carried by said traveler, whereby said feed pipe is longitudinally extended and contracted during its horizontal swinging movement, and a hose attached to the delivery end of said feed pipe.

2. The combination with an oblong overhead track and a traveler mounted to run thereon, of a supply pipe, a longitudinally extensible feed pipe, a swivel joint connecting said feed pipe to said supply pipe, for horizontal swinging movement, a flexible joint in said feed pipe, the delivery end of said feed pipe being carried by said traveler, whereby said feed pipe is longitudinally extended and contracted during its horizontal swinging movement, and a hose attached to the delivery end of said feed pipe.

3. The combination with an oblong overhead track and a traveler mounted to run thereon, of a supply pipe, having a depending delivery end, a horizontal longitudinally extensible feed pipe, an L-shaped pipe interposed between said supply and feed pipes, a swivel joint connecting the vertical leg of said L-shaped pipe to said supply pipe, a flexible joint connecting the horizontal leg of said L-shaped pipe to said feed pipe, said feed pipe being pivotally supported for vertical swinging movement, the delivery end of said feed pipe being carried by said traveler, whereby said feed pipe is longitudinally extended and contracted during its horizontal swinging movement, and a hose attached to the delivery end of said feed pipe.

4. The combination with an oblong overhead track and a traveler mounted to run thereon, of a supply pipe, having a depending delivery end, a stuffing box on the delivery end of said supply pipe, a horizontal longitudinally extensible feed pipe, an L-shaped pipe interposed between said supply and feed pipes, the vertical leg of said L-shaped pipe being swiveled in said stuffing box, a flexible joint connecting the horizontal leg of said L-shaped pipe to said feed pipe, a collar on the delivery end of said supply pipe, supported on said stuffing box and having straps to which said L-shaped pipe is attached, said feed pipe being supported from said L-shaped pipe for vertical swinging movement, the delivery end of said feed pipe being carried by said traveler, whereby said feed pipe is longitudinally extended and contracted during its horizontal swinging movement, and a hose attached to the delivery end of said feed pipe.

5. The combination with an overhead track and a traveler mounted to run thereon, of a supply pipe having a depending delivery end, a stuffing box on the delivery end of said supply pipe, a horizontal feed pipe, an L-shaped pipe interposed between said supply and feed pipes, the vertical leg of said L-shaped pipe being swiveled in said stuffing box, a flexible joint connecting the horizontal leg of said L-shaped pipe to said feed pipe, a collar on the delivery end of said supply pipe, supported on said stuffing box and having depending straps to which

said L-shaped pipe is pivotally secured, said feed pipe having a return leg with a longitudinally extensible delivery section, carried by said traveler, a pair of bars intermediately pivoted on the pivotal support for said L-shaped pipe, one end of said bars being secured to said feed pipe and the other end thereof being secured to the return leg of said feed pipe, and a hose attached to the delivery section of the return leg of said feed pipe.

6. The combination with an oblong overhead track and a traveler mounted to run thereon, of a supply pipe, a feed pipe, a swivel joint connecting said feed pipe to said supply pipe, for horizontal swinging movement, said feed pipe having a return leg with a longitudinally extensible delivery section, carried by said traveler, and a hose attached to the delivery section of the return leg of said feed pipe.

7. The combination with an oblong overhead track and a traveler mounted to run thereon, of a supply pipe, a feed pipe, a swivel joint connecting said feed pipe to said supply pipe, for horizontal swinging movement, said feed pipe having a return leg with a longitudinally extensible delivery section, carried by said traveler, with freedom for rotary and horizontal swinging movements, and a hose attached to the delivery section of the return leg of said feed pipe.

8. The combination with an oblong overhead channel track and a wheeled truck mounted to run therein, of a supply pipe, a longitudinally extensible feed pipe, a swivel joint connecting said feed pipe to said supply pipe, for horizontal swinging movement, the delivery end of said feed pipe having a stem secured to said truck with freedom for rotary and horizontal swinging movements, and a hose attached to the delivery end of said feed pipe.

9. The combination with an overhead oblong channel track and a wheeled truck mounted to run therein, of a supply pipe, extending within said track, a longitudinally extensible feed pipe, a swivel joint connecting said feed pipe to said supply pipe, for horizontal swinging movement, the delivery end of said feed pipe being pivotally secured to said truck, and a hose attached to the delivery end of said feed pipe.

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

FRANK KLINGENSMITH.

Witnesses:

ALICE L. KING,

HARRY D. KILGORE.

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