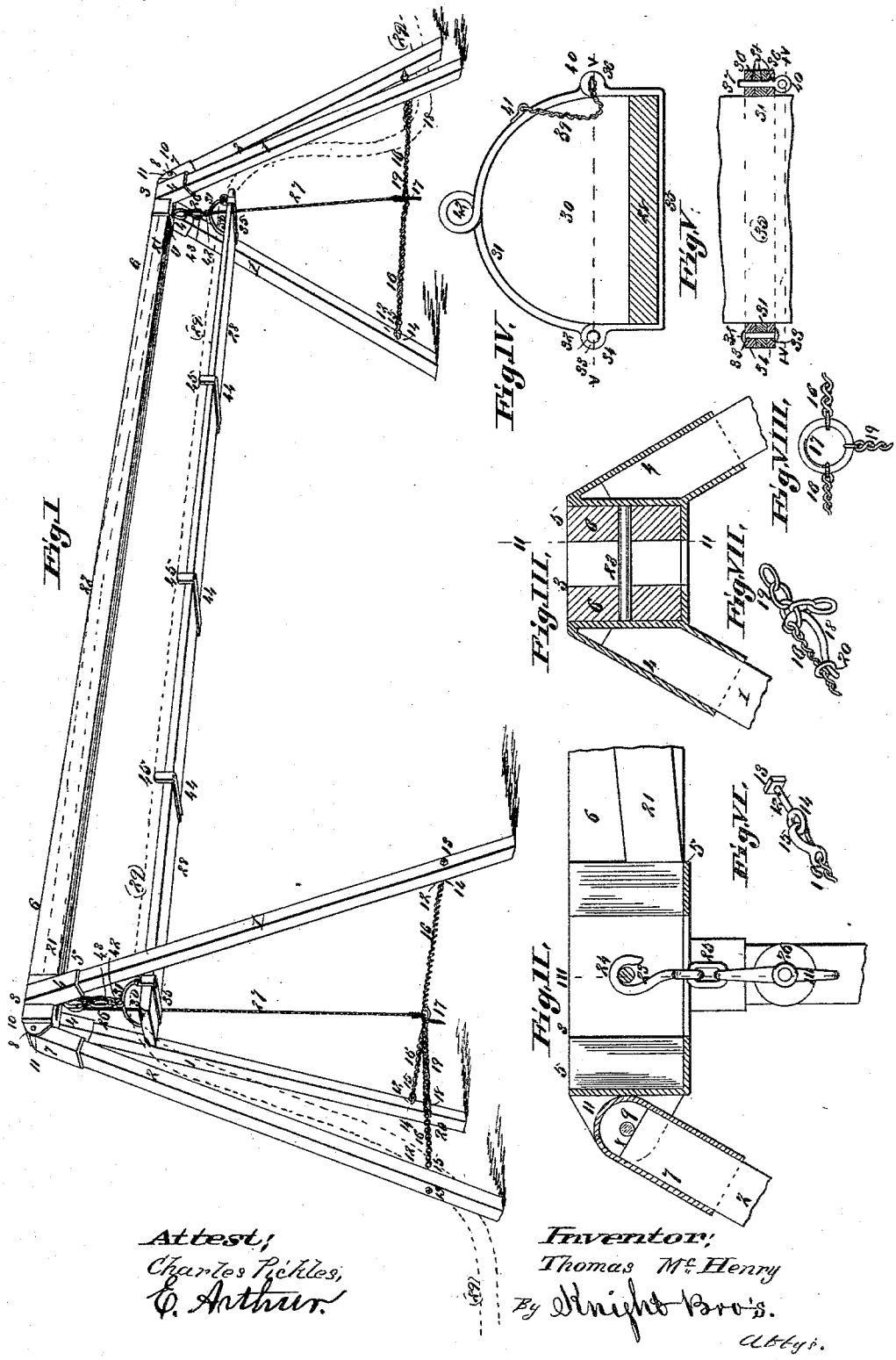
(No Model.)

T. McHENRY.

HOSE ELEVATOR OVER RAILROAD TRACKS.

No. 411,725. Patented Sept. 24, 1889.



Attest;
Charles Pickles,
C. Arthur.

Inventor;
Thomas McHenry
By Knight Bro's.
Attys.

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

THOMAS McHENRY, OF ST. LOUIS, MISSOURI.

HOSE-ELEVATOR OVER RAILROAD-TRACKS.

SPECIFICATION forming part of Letters Patent No. 411,725, dated September 24, 1889.

Application filed July 22, 1889. Serial No. 318,219. (No model.)

To all whom it may concern:

Be it known that I, THOMAS McHENRY, of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Hose-Elevators Over Railway-Tracks, &c., of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to devices for elevating hose of the fire department sufficiently above railway-tracks and streets over which it crosses to enable the passage thereunder of cars, trains, vehicles, &c., without passing over and thereby injuring said hose; and the invention consists in features of novelty hereinafter fully described, and pointed out in the claims.

Figure I is a perspective view of the construction of the carry-beam on which the hose is elevated over the track of the railway or street. Fig. II is a vertical section taken on line II II, Fig. III, and shows a detail of the tripod-head that holds the supporting-legs of the structure and of the connecting-beam that couples the tripods. It also shows the means by block and tackle for the support of the carry-beam over which the hose passes. Fig. III is a vertical section taken on line III III, Fig. II, and shows the tripod-head with a detail of the lateral tripod-legs, the bolt that supports the block and tackle, and a cross-section of the beam that couples the tripods. Fig. IV is a horizontal quarter up-turn section taken on line IV IV, Fig. V, and shows the bail-hanger that supports the carrier-beam. Fig. V is a horizontal quarter down-turn section taken on line V V, Fig. IV, and shows the pivotal hinge of the bail and the lock-pin that secures it in its closed position. Fig. VI is a perspective view of the eyebolts that engage in and near the foot of the tripod-legs and of the spring-snap that engages therein, with a detail of the straddle-chain that said snap carries. Fig. VII is a perspective detail of the rear straddle-chain and shows the locking-hook's respective attachment in one of the ring-links, a change from one to the other of said links adjusting the straddle of the rear tripod-legs; and Fig. VIII is a top view of the central tripling-ring, from which the straddle-chains diverge toward the respective legs of the tripod.

Referring to the drawings, 1 represents the side or lateral legs of the tripods, and 2 the rear pivotal legs, the feet of which latter are intended to stand in the gutter at the curb of the sidewalk on the side of the street.

3 represents the metal tripod-heads, which are at each end of the structure provided with two lateral pendent socket-caps 4, in which are seated the upper ends of the lateral legs.

1 and 5 are the central boxings of said tripod-heads, in which are seated the ends of the double coupling-beam 6, which is composed of two parallel planks having an intervening space between them.

7 represents pendent pivotal socket-heads, in which are seated the upper ends of the rear pivotally-adjustable legs 2. The pivotal hinge-bolts 8 pass through the perforations 9 near the top of said heads and through corresponding perforations 10 in the rearwardly-projecting flanges 11, that are integral with the aforesaid metal tripod-heads 3.

12 represents screw-tipped eyebolts, which are respectively seated in the tripod-legs near their feet or lower extremities, the screw-tips projecting outwardly from said legs, and the bolts being held in their seats by screw-nuts 13, which engage on the screw-tips of the bolts. The eyelets 14 of said bolts project inwardly from the legs, and into said eyelets the spring-snaps 15 at the outer terminals of the straddle-chains 16 engage. The inner ends of the straddle-chains that govern the straddle of the lateral legs are secured directly to the central triple junction-ring 17; but the inner ends of the straddle-chains, (also numbered 16,) that govern the straddle of the pivoted rear legs of the tripods, carry locking-hooks 18, which have pivotal connection with the terminal links of said chains and which hooks are passed through either of the ring-links of the adjusting-chains 19, which at their inner end are linked to the triple junction-rings 17, and the hooks are seated in the different links so as to adjust the length of straddle of said pivoted rear legs. The points of said locking-hooks are then brought back, and the loose rings 20, which ride on the straddle-chains 16, are passed over the slightly-

outturned points of the hooks, and thus hold the said hooks captive and lock the attachment of the chain to its adjusted length.

21 represents the brace-strips, whose heels rest against the tripod-head metal castings toward the lower side of the coupling-beams 6, and whose upper ends are mitered together toward the upper side of said coupling-beam at 22 to brace and strengthen its parallel sections.

23 represents the tackle-supporting cross-bars, whose ends are respectively seated and held in the opposite parallel sections of the coupling-beam. Hanging pendent from said bars are the hoisting blocks and tackle by which the hose is elevated and by which it is held in elevation, and which is composed of the usual attachment-hooks 24, connecting-link 25, a system of sheave blocks or block 26, of usual construction, and the hoisting-ropes 27, that are rove around the sheaves of said blocks, and the lower ends of which hoisting-ropes, when the hose is elevated, are respectively at each end of the structure tied or otherwise made fast to the triple junction-ring 17, that unites the straddle-chains, so as to secure the retention of said hose in its elevated position. There are preferably in said hoisting-tackle a multiple of sheave-blocks or sheaves in blocks, preferably as shown in Fig. I, a double sheave-block above and single one below at each end of the structure, to multiply the hoisting-power exerted on the ropes in the elevation of said hose; but I do not confine myself to the use of any particular number of blocks or of sheaves therein, for that may largely be determined by the number and weight of the hose to be elevated.

28 represents the carry-beam on which the hose 29 is supported for elevation, and on which it continues to lie while elevated. This carry-beam is swung within bail-hangers 30 at each end, the bails 31 of which are hinged at one end by the pivot-pins 32, that are seated in the corresponding perforations 33 in the hinge terminals of said bails and in the bifurcated hinge-lugs 34, that on one side surmount the carrier base-frame 35 of said hangers. The other or loose terminals of said bails when closed are seated between the bifurcated lugs 36, that surmount the locking end of the carrier-bases 35, and lock-pins 37 are seated in registering perforations 38 in said lugs and in the loose terminals of said bails when closed to lock their closure. Said pins are held captive by the chains 39, which at the loose ends, respectively, are secured to the eylet-heads 40 of said locking-pins, and at the reverse ends are secured to the eyelet lugs 41, which are rigidly secured to the bails. Coil-eyelets 42 on the summits of the bails provide attachment-seats for the grab-hooks 43 of the hoisting-tackle when it is required to elevate the carry-beam and the hose it supports.

44 represents metal brackets that are secured to the carry-beams 28, under which they pass, and the surmounting studs 45 of which brackets, in conjunction with the bails 31, hold the hose on its supporting-bed on the carry-beam. The carry-beam is preferably provided with bevel-curved ends 46, so as to avoid any sharp corners that would endanger the cutting of the soft-rubber hose. Five or six hose, or more, if necessary, can be laid on the carry-beam before elevating, the hinged bails being unlocked and thrown open until the laying of the hose on said carry-beam, when they are closed down over them and the locking-pins are inserted in their seats. The grab-hooks of the hoisting-tackle being then hitched to the bails, the carry-beam and its lading of hose is elevated by drawing on the ropes 27 at each end of the structure, and is retained in its elevation by hitching or tying the lower terminals of said ropes to the rings 17, that triple together the straddle-chains 16. Now it is evident that when elevated above the street or track the hose is removed from the obstruction of the railway-tracks or streets that it is necessitated to cross, so that there can be a free passage of the trains, cars, or vehicles, &c., that require to pass that way, and the hose itself is removed from all danger of injury.

The tripod-legs, coupling-beam, and carry-beam are preferably constructed of wood, but may be of any other suitable material.

I claim as my invention—

1. In a hose-elevator, the combination of the two tripods, the coupling-beam, the carry-beam that supports the hose, and the block and tackle suspended from the structure, by which hoisting-tackle the said carry-beam and hose are elevated, substantially as described, and for the purpose set forth.

2. In a hose-elevator, the combination of the stationary lateral tripod-legs, the pivotally-adjustable straddling rear legs, the coupling-beam, the metal heads having pendent sockets in which the tops of the lateral legs are seated and boxings in which the ends of the coupling-beam are seated, the projecting rear flanges 11, integral with said metal heads, the pivotal metal socket-heads 7, in which the tops of said adjustable rear legs are seated, and the pivot-pins 8, on which said metal heads 7 and the adjustable rear legs are journaled, substantially as described, and for the purpose set forth.

3. In a hose-elevator, the combination of the tripods constructed with stationary laterally-projecting legs and rear pivotally-adjustable legs and having metal socket-heads in which the legs of said tripods are seated, and the parallel longitudinally-separated sections of the coupling-beam seated in the metal boxings of the tripod-heads, and the block-and-tackle-supporting bars 23, the ends of which are secured in and couple the said sections of the beam, substantially as described, and for the purpose set forth.

4. In a hose-elevator, the combination of the tripods having metal socket-heads in which

the legs are seated, the lateral socket-heads being stationary and the rear socket-head pivotally secured to said stationary part, the eyelet-bolts 12, secured to said legs, the straddle-chains 16, the outer ends of which are secured to the eyelets of said eyebolts, and the triple junction-ring 17, to which the inner ends of said straddle-chains are secured, substantially as described, and for the purpose set forth.

5. In a hose-elevator, the combination of the tripods with wooden legs and metal socket-heads, the lateral or side legs being stationary and the rear legs pivotally hinged to the other part of said head, the eyelet-bolts 12, secured to said legs, the spring-snaps that engage in said eyelets, the straddle-chains secured to said spring-snaps, the triple junction-ring 17, to which the straddle-chains from the lateral legs of the tripod are secured, the ring-linked adjusting-chain 19, secured to said junction-rings, the locking-hooks 18 on the inner terminal of the straddle-chain that connects the rear pivoted leg, and the loose mounted rings 20, that fasten the locking-hooks, substantially as described, and for the purpose set forth.

6. In a hose-elevator, the combination of the tripods, the longitudinally-sectional coupling-beam, the carry-beam 28, and the bail-hangers that carry said beam, the bail of said hanger being hinged at one end and lock-bolted at the other end to the carrier-hanger frame and suspended from said beam, substantially as described, and for the purpose set forth.

7. In a hose-elevator, the combination of the tripods, the coupling-beam that unites said tripods, the block and tackle suspended from said coupling-beam, the carrier-hanger base-frames 35, the hinged bails from which said hanger-frames are suspended, the locking-pins that secure said bails in their closed position, the carry-beam seated in said hangers that carries the hose, and the studded brackets secured to said carry-beams that fence in the hose, the grab-hook of the block and tackle engaging with the bail of said hanger and the hoisting-rope of said tackle, thereby effecting the elevation of said hangers, said carry-beam, and said hose, said hoisting-rope being attachable to the triple junction-ring 17 to secure the retention of the elevation of said hose, &c., substantially as described, and for the purpose set forth.

THOMAS McHENRY.

In presence of—
BENJN. A. KNIGHT,
SAML. KNIGHT.