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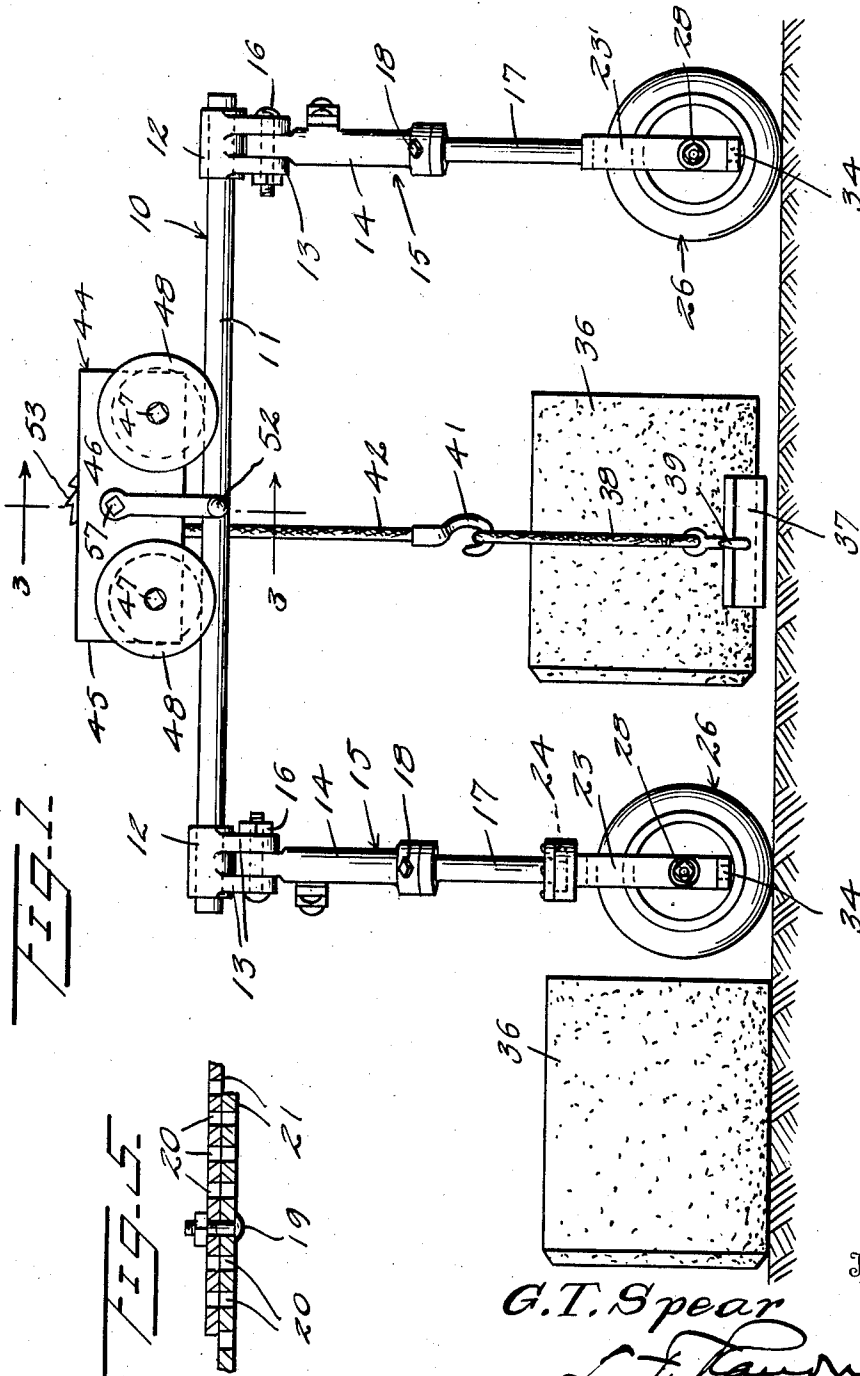
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2,333,208

DRAIN PIPE CONVEYER

Filed Oct. 1, 1942

3 Sheets-Sheet 1



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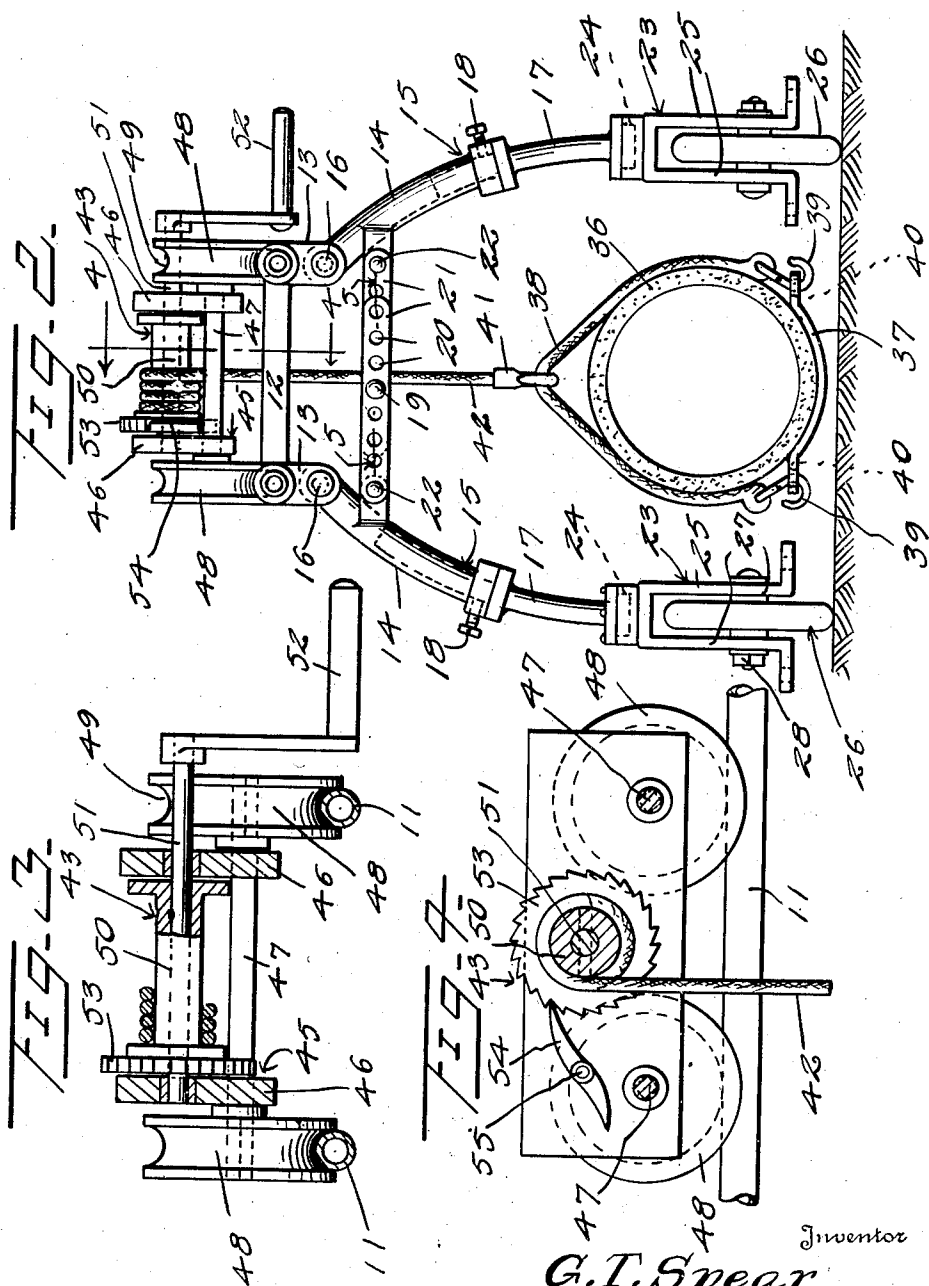
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3 Sheets-Sheet 2



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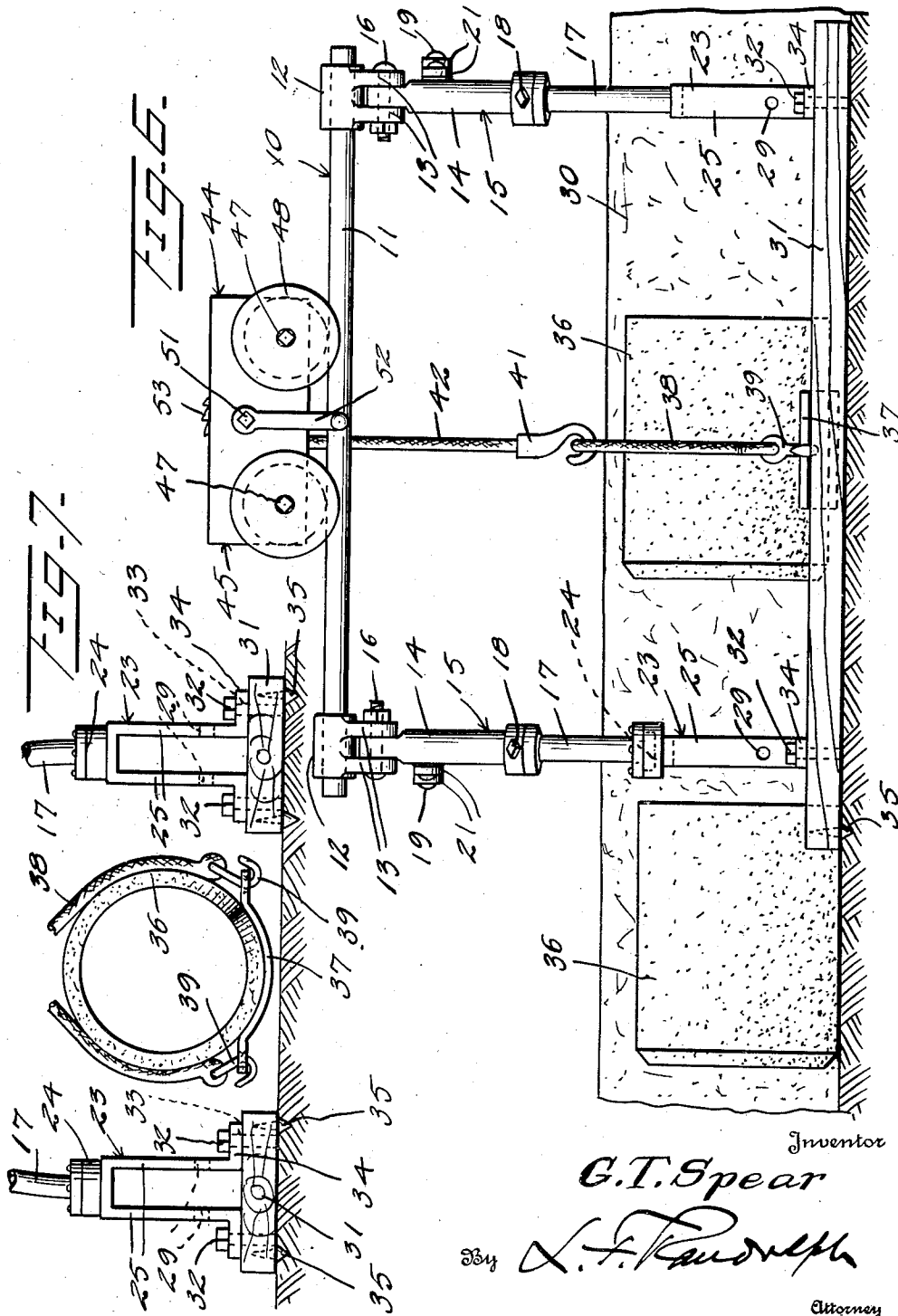
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UNITED STATES PATENT OFFICE

2,333,208

DRAINPIPE CONVEYER

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Application October 1, 1942, Serial No. 460,441

4 Claims. (Cl. 212-74)

This invention relates to a drain pipe conveyer.

It is aimed to provide a novel construction whereby pipes or sections of pipes, for instance drain pipes, may be expeditiously handled as in laying a pipeline, either within a ditch or on the surface of the ground or terrain.

One object of the invention is to provide a movable frame adjustable so as to accommodate use with pipes of various sizes and on which frame a conveyer or carriage is movable and has windlass-controlled cable means to suspend the pipe.

It is also aimed to provide a frame which may be effectively anchored in a ditch and which when on the surface of the ground may move on wheels and which wheels at the front may be turned or steered.

The more specific objects and advantages will become apparent from a consideration of the description following taken in connection with the accompanying drawings illustrating an operative embodiment.

In said drawings:

Figure 1 is a view in side elevation showing the conveyer as used on the surface of the ground;

Figure 2 is an end elevation of the conveyer;

Figure 3 is a vertical section taken on the line 3-3 of Figure 1;

Figure 4 is a vertical section taken on the line 4-4 of Figure 2;

Figure 5 is a detailed section taken on the line 5-5 of Figure 2;

Figure 6 is a view similar to Figure 1 but showing the device as used in a ditch and

Figure 7 is a fragmentary end elevation of the device as used in Figure 6.

Referring specifically to the drawings a frame work generally designated 10 is employed. At the top, the frame work has a generally rectangular body consisting of a pair of spaced parallel side rods 11 rigidly but adjustably, if desired, connected at opposite ends by transverse bars 12.

Said transverse bars 12 at each end have a pair of spaced depending ears 13 between which the upper sections 14 of curved legs are inter-fitted and adjustably fastened by means of detachable bolts 16. Legs 15 also have lower sections 17, preferably arcuate, which are slidable into and out of the sections 14, since the latter are hollow at their lower ends, in order to adjust the legs 15 to any desired permissible length. The sections 14 and 17 are adapted to be secured together at different adjustments by means of a binding screw as at 18.

The legs 15 may be swung on the bolts 16 as

pivots to any desired distance apart at their lower ends, and are fastened in such positions by passing bolts or the like 19 through selected openings 20 of links 21, pivoted at 22 to the upper leg section 14.

At the lower end of each leg section 17 a bracket or fork 23 is provided, those at the rear preferably being rigidly connected to the adjacent leg section 17 while those at the front are preferably connected by swivel joints 24 to the lower ends of the adjacent leg section 16 in order to enable turning on vertical axes. Between the spaced sides 25 of the brackets or forks, wheels 26 are journaled on axles 27 located between the sides and detachably secured in place by means of bolts 28 passed through openings 29 in such sides. The wheels may be of any desired size or construction but preferably are equipped with pneumatic tires.

The structure equipped with the wheels is preferably used on the surface of the earth and under such conditions, the front wheels will turn or steer in view of the provision of the swivel joint 24. However, when the structure is used in a ditch as at 30 in Figures 6 and 7, it is preferably adapted to be anchored to wooden planks or boards 31 or the equivalent by means of bolts or fastenings 32 passed through openings 33 in laterally extending flanges or feet 34. The apparatus with the planks fastened thereto is adapted to be lifted from place to place and progressively as the laying of the pipe continues and to prevent accidental slippage, ground-engaging spurs 35 may be provided on the planks.

The pipe or pipe sections to be handled or laid may be like those suggested at 36 and are usually to be placed end to end. A section of the pipe is engaged from below by a plate 37 forming part of a sling completed by a flexible cable section 38 having hooks 39 flexibly connected to its ends and detachably engaged in openings 40 of the plate 37. Such sling 37 is adapted to be detachably engaged by a hook 41 of a flexible suspending and manipulating cable 42 operable by a windlass 43 mounted on a carriage or conveyer 44.

The conveyer or carriage 44 may be of any suitable construction and is shown as having a frame 45 including side members 46. Axles 47 are mounted transversely of the frame and are journaled therein and have wheels 48 keyed to the ends thereof. Such wheels are peripherally grooved at 49 in order to engage and move along the rods 11 as tracks.

The aforesaid windlass 43 may consist of a

drum 50 carried by a shaft 51 journaled in the side members 46 and manually operable by a crank 52. One end of the cable 42 is fastened to the drum 50. Fast on the drum 50 is a ratchet wheel 53 with which a pawl 54 pivoted to one of the frame members 46 coacts, to prevent retrograde movement of the drum. It will be realized that the pawl 54 may be manually displaced if desired.

It is obvious that the structure may be built in any desired size and with the parts proportioned as desired to handle or accommodate various sizes of pipes or the equivalent.

I claim as my invention:

1. Apparatus for conveying pipe comprising a framework having a body, a carriage movable on the body for the suspension of pipe therefrom, front and rear pairs of supporting legs pivotally attached to the body and intermediate the legs of which pairs the pipe is suspended, each pair of legs extending generally downwardly and outwardly from said body, said legs being unconnected and spaced apart at their lower ends to avoid interference with suspended pipe, and means relatively close to the pivots of the legs operable to vary the spread of the legs at the lower ends of the latter.

2. Apparatus for conveying pipe comprising a framework having a body, a carriage movable on the body for the suspension of pipe therefrom, front and rear pairs of supporting legs pivotally attached to the body and intermediate the legs of which pairs the pipe is suspended, each pair of legs extending generally downwardly and outwardly from said body, said legs being unconnected and spaced apart at their lower ends to avoid interference with suspended pipe, and means relatively close to the pivots of the legs operable to vary the spread of the legs at the

lower ends of the latter, wheels on the legs, forks mounting the wheels of the front pair of legs for swiveling.

3. Apparatus for conveying pipe comprising a framework having a body, a carriage movable on the body for the suspension of pipe therefrom, front and rear pairs of supporting legs pivotally attached to the body and intermediate the legs of which pairs the pipe is suspended, each pair of legs extending generally downwardly and outwardly from said body, said legs being unconnected and spaced apart at their lower ends to avoid interference with suspended pipe, and means relatively close to the pivots of the legs operable to vary the spread of the legs at the lower ends of the latter, each leg consisting of upper and lower sections, and means connecting the lower sections to the upper sections for adjustment rotatably relatively thereto.

4. Apparatus for conveying pipe comprising a framework having a body, a carriage movable on the body for the suspension of pipe therefrom, front and rear pairs of supporting legs pivotally attached to the body and intermediate the legs of which pairs the pipe is suspended, each pair of legs extending generally downwardly and outwardly from said body, said legs being unconnected and spaced apart at their lower ends to avoid interference with suspended pipe, and means relatively close to the pivots of the legs operable to vary the spread of the legs at the lower ends of the latter, forks at the lower ends of the legs, said forks having outwardly extending flanges adapted to rest on planks or the like in the absence of wheels, the forks having means to mount wheels at a height to space the flanges above the ground.

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