

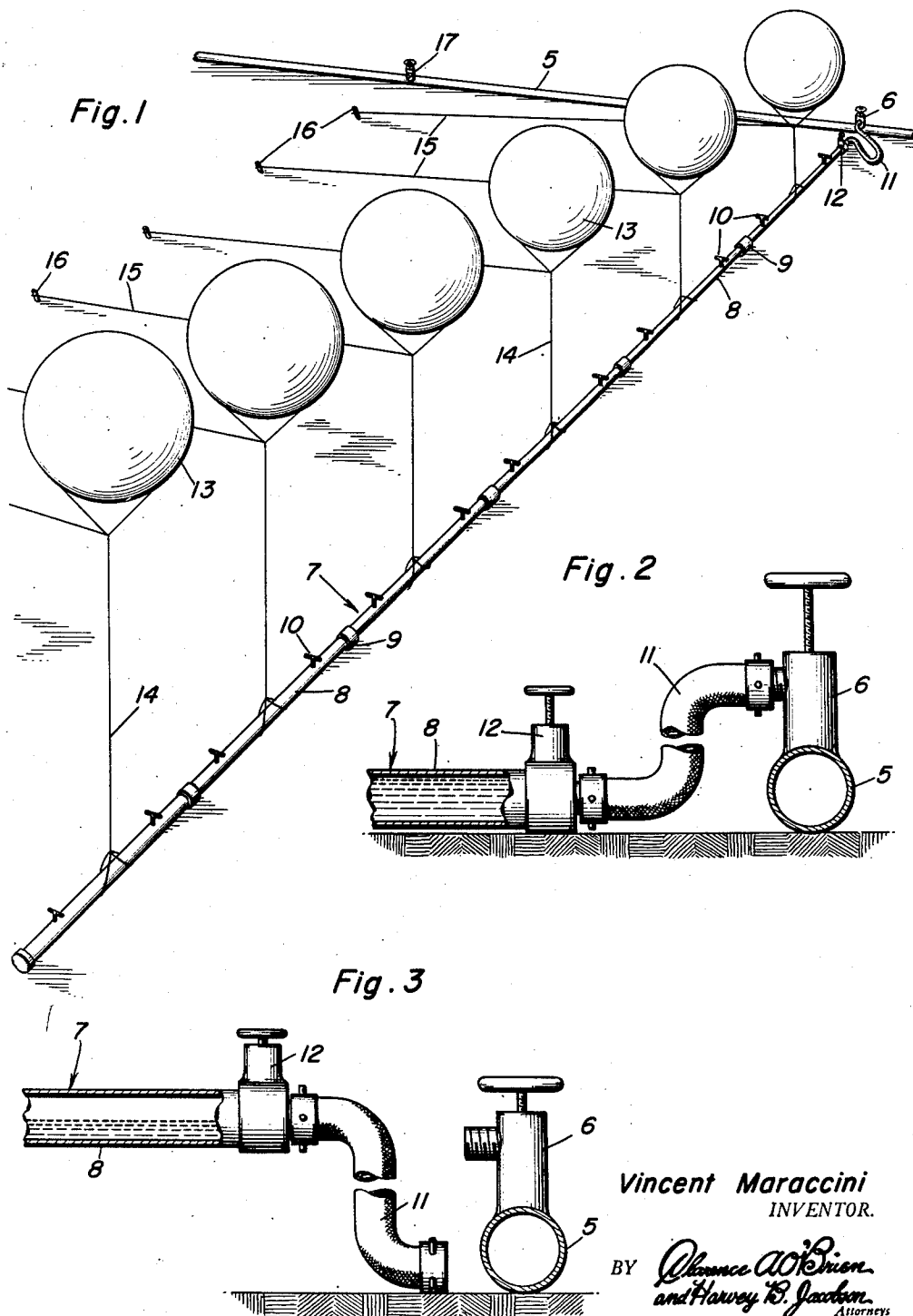
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METHOD OF SHIFTING IRRIGATING PIPE

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METHOD OF SHIFTING IRRIGATING PIPE

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1 Claim. (Cl. 299—47)

The present invention relates to new and useful improvements in irrigating or chemical spraying, etc., systems, and has for its primary object to provide a novel method of and means for expeditiously and with a minimum of labor, shifting intact a string of pipe from one location to another in the field.

Other objects of the invention are to provide an irrigating, spraying, etc., apparatus of the character described which will be comparatively simple in construction, highly efficient and reliable in operation, and which may be manufactured at low cost.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a perspective view of an apparatus constructed in accordance with the present invention;

Figure 2 is a view partially in section and partially in side elevation, showing the connection of the irrigating pipe to the header; and

Figure 3 is a view substantially similar to Figure 2 but showing the irrigating pipe detached from the header, preparatory to shifting the former.

Referring now to the drawing in detail, it will be seen that reference character 5 designates a conventional supply header which is provided, at suitably spaced points, with the usual discharge valves 6.

Detachably connected to one of the valves 6 of the header 5 is a conventional irrigating pipe which is designated generally by reference character 7. The irrigating pipe or string 7 may comprise any desired number of sections 8 connected by the usual couplings 9 and provided with sprinklers 10.

The end of the irrigating pipe 7 which is adjacent the header 5 is detachably connected to one of the valves 6 by a hose 11. This end of the irrigating pipe 7 is provided with a suitable drain valve 12.

A plurality of captive balloons 13 are connected to the irrigating pipe 7 at longitudinally spaced points through the medium of lifting ropes or cables 14. Then, the balloons 13 are tethered to the ground through the medium of anchoring ropes 15 and stakes 16.

It is thought that the invention will be readily understood from a consideration of the foregoing. Briefly, when the irrigating pipe 7 is to be shifted, the stakes 16 on one end of the anchoring ropes 15 are driven into the ground at the new location, as at 17. The valve 6 is closed and the hose 11 is disconnected therefrom, as shown in Figure 3 of the drawing. The valve 12 is then opened to permit the irrigating pipe 7 to drain. When the irrigating pipe 7 is thus lightened sufficiently, it is lifted by the balloons 13 and the valved end thereof is walked to the new location, as indicated at 17, and reconnected to the header 5. The water from the header 5 is then turned on again and while the irrigating pipe 7 slowly refills, the other or free end thereof is walked to the new location. As the irrigating pipe 7 fills with water again, it slowly settles to the ground, the weight thereof being sufficient to overcome the buoyancy of the balloons 13.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly, all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

A method of shifting an irrigating pipe relative to a header, said method comprising: connecting a plurality of balloons to the pipe at longitudinally spaced points, anchoring said balloons to the ground at the location to which the pipe is to be shifted, disconnecting the pipe from the header, partially draining said pipe until the combined weight thereof and the remaining water therein is slightly below the lifting capacity of the balloons for permitting said pipe to be lifted by said balloons, walking the elevated pipe to the new location and reconnecting same to the header, and then refilling said pipe from the header for overcoming the buoyancy of the balloons and settling said pipe to the ground.

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