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Garcia

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[54] **HOSE COILING APPARATUS**

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[51] **Int. Cl.**[6] **A62C 35/00**

[52] **U.S. Cl.** **137/355.26**; 137/355.23; 242/376.1; 242/393; 242/395

[58] **Field of Search** 242/376.1, 379.2, 242/379, 393, 395; 137/355.2, 355.23, 355.26, 355.12, 355.16

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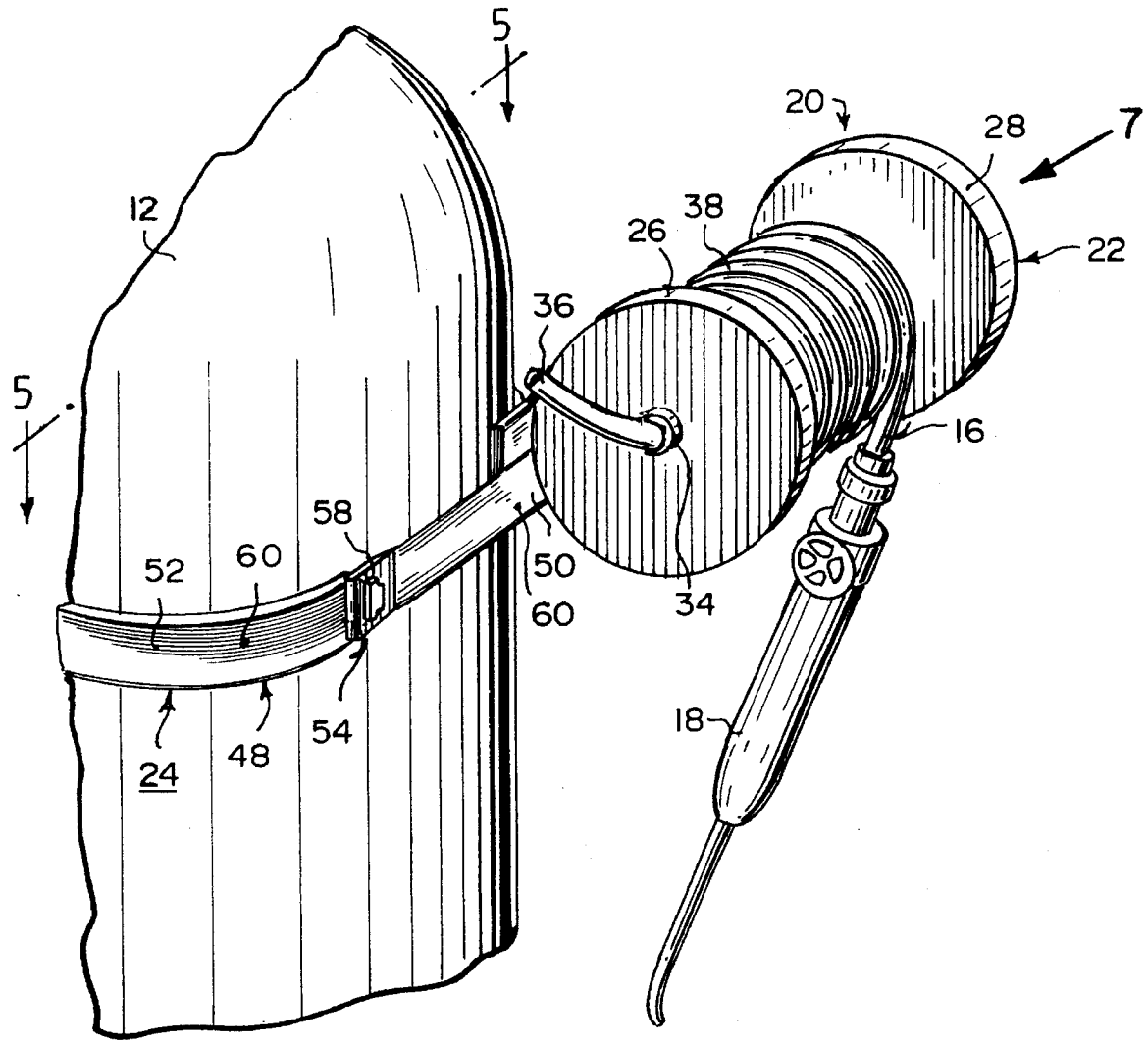
Attorney, Agent, or Firm—Michael I. Kroll

[57] **ABSTRACT**

A hose coiling apparatus for an acetylene tank having a regulator, a hose and an operating handle. The apparatus comprises a structure for safely storing the hose in a wound up manner. A facility is for mounting the storing structure onto the acetylene tank. A person can grip the operating handle and pull the hose out of the storing structure for use, thereby preventing the hose from getting tangled, pinched and pulled accidentally.

2 Claims, 3 Drawing Sheets



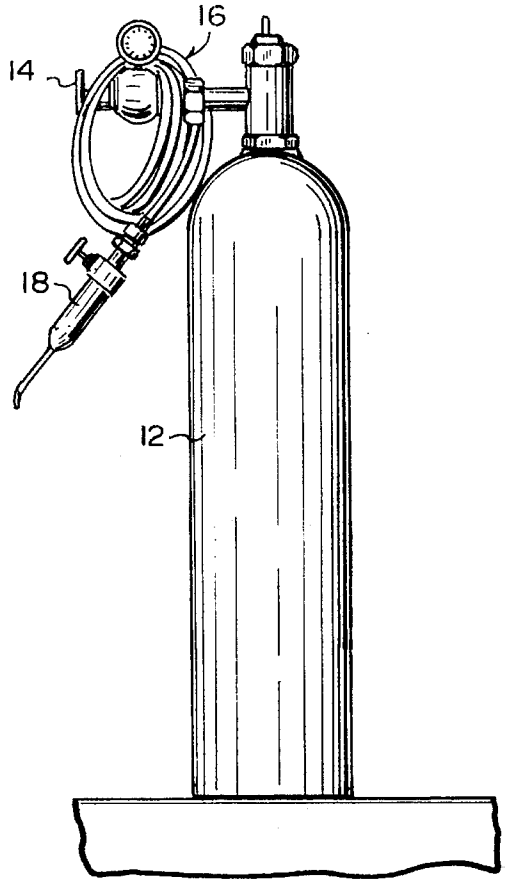


Fig. 1
(PRIOR ART)

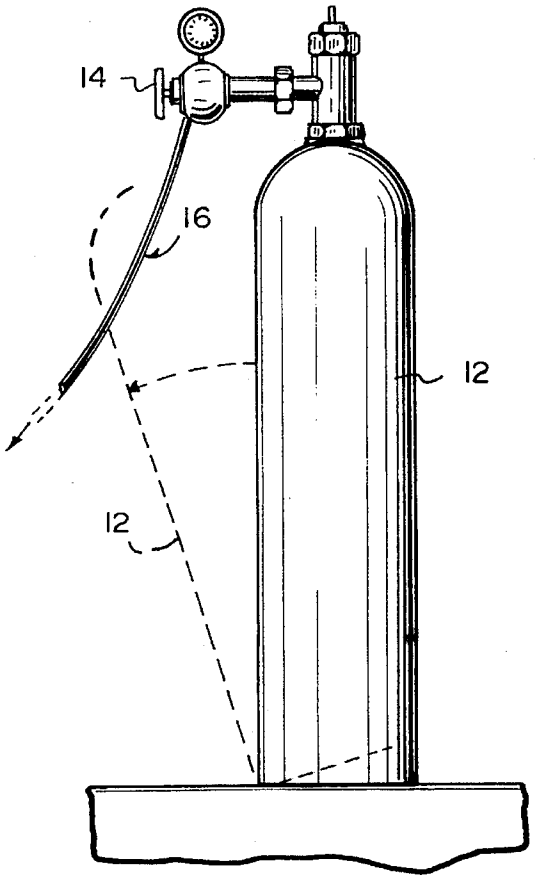


Fig. 2
(PRIOR ART)

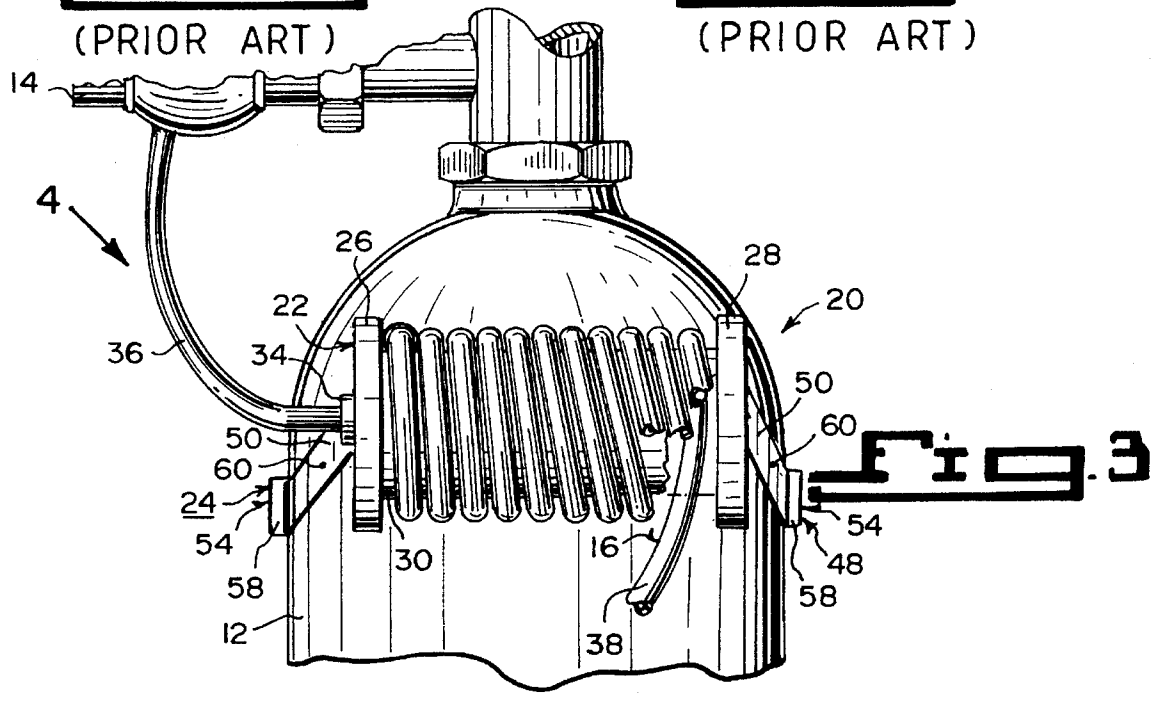


Fig. 3

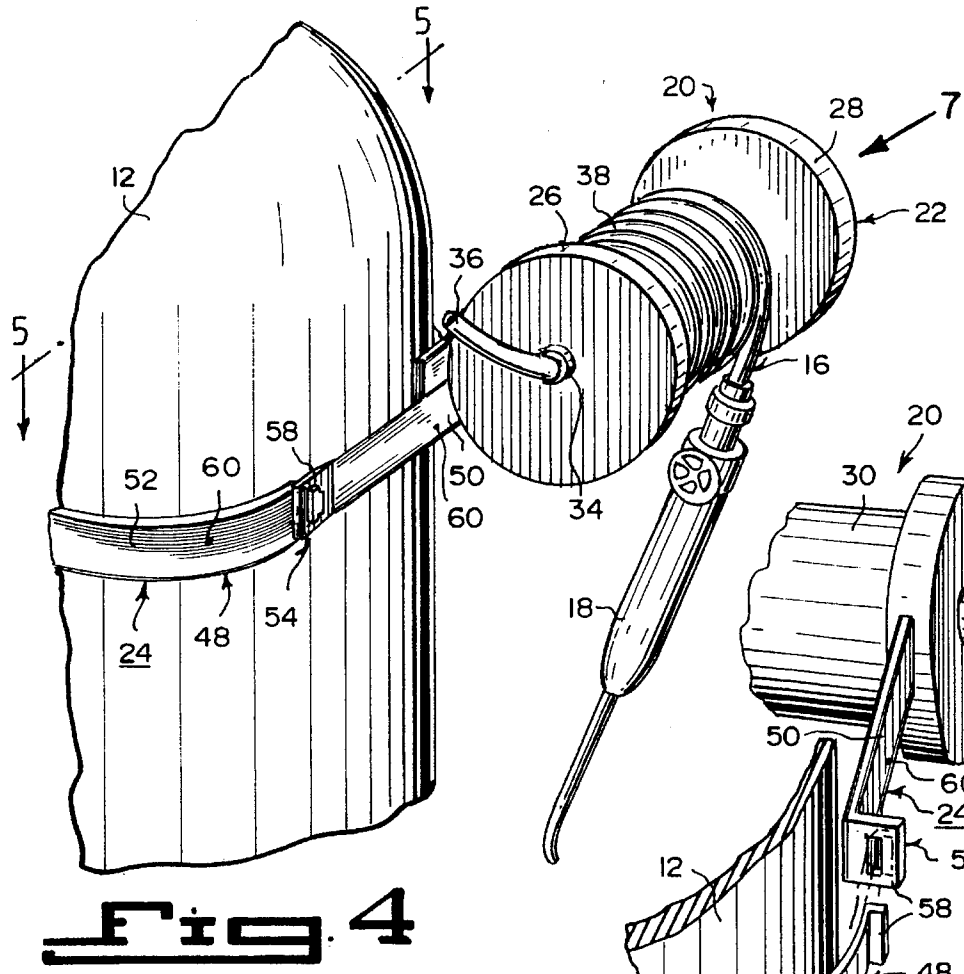


Fig. 4

Fig. 6

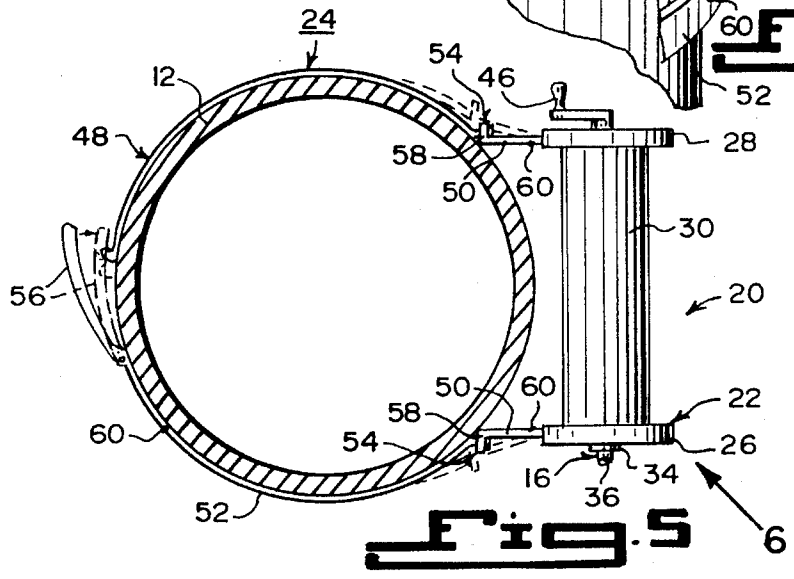


Fig. 5

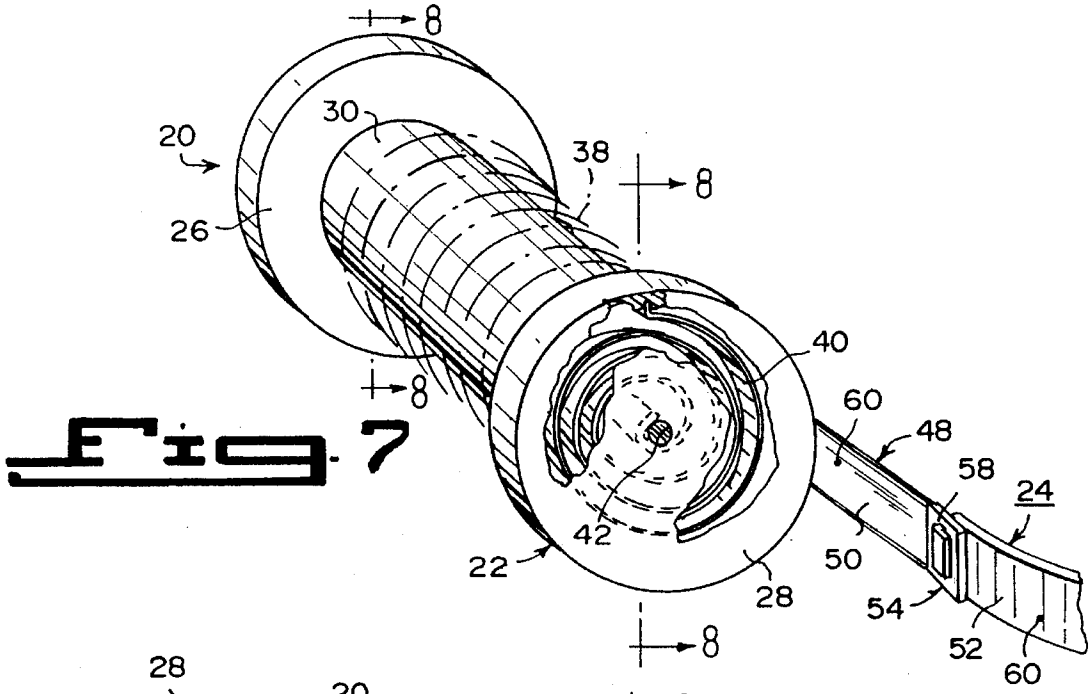


Fig. 7

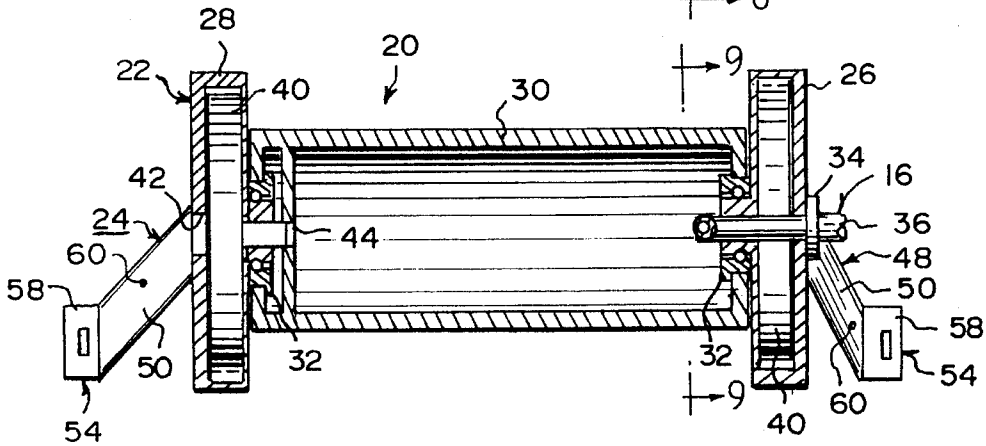


Fig. 8

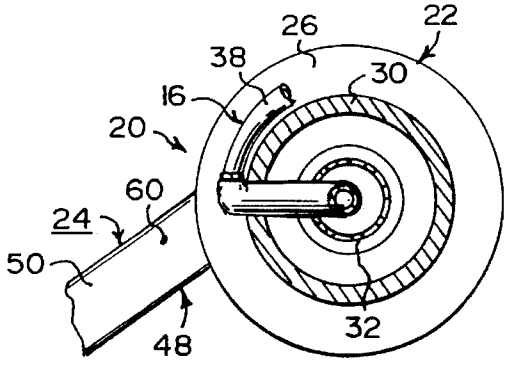


Fig. 9

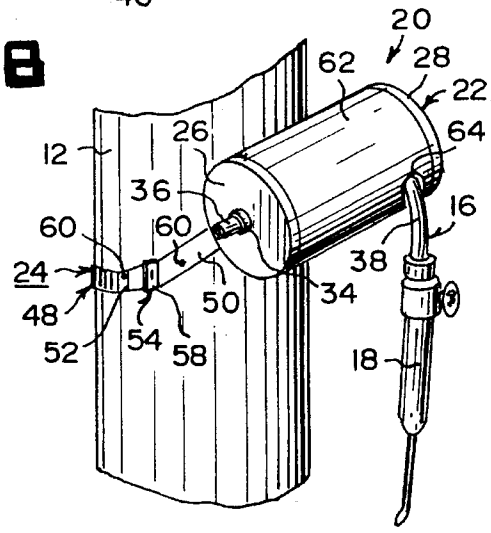


Fig. 10

HOSE COILING APPARATUS

BACKGROUND OF THE INVENTION

1. Field of the Invention

The instant invention relates generally to welding equipment and more specifically it relates to a hose coiling apparatus for an acetylene tank.

2. Description of the Prior Art

Numerous welding equipment have been provided in prior art that are adapted to include acetylene tanks with regulators having dangerously dangling hoses, which can get tangled, pinched and pulled. While these units may be suitable for the particular purpose to which they address, they would not be as suitable for the purposes of the present invention as heretofore described.

SUMMARY OF THE INVENTION

A primary object of the present invention is to provide a hose coiling apparatus that will overcome the shortcomings of the prior art devices.

Another object is to provide a hose coiling apparatus for an acetylene tank, with a regulator that will safely store in a wound up manner the hose, so that the hose will not get tangled, pinched and pulled accidentally.

An additional object is to provide a hose coiling apparatus, that includes a rotate spool for storing the hose which is secured in a convenient location onto the acetylene tank to be used therefrom.

A further object is to provide a hose coiling apparatus that is simple and easy to use.

A still further object is to provide a hose coiling apparatus that is economical in cost to manufacture.

Further objects of the invention will appear as the description proceeds.

To the accomplishment of the above and related objects, this invention may be embodied in the form illustrated in the accompanying drawings, attention being called to the fact, however, that the drawings are illustrative only, and that changes may be made in the specific construction illustrated and described within the scope of the appended claims.

BRIEF DESCRIPTION OF THE DRAWING FIGURES

Various other objects, features and attendant advantages of the present invention will become more fully appreciated as the same becomes better understood when considered in conjunction with the accompanying drawings, in which like reference characters designate the same or similar parts throughout the several views, and wherein:

FIG. **1** is an elevational view of the prior art, showing the hose wrapped around the regulator.

FIG. **2** is an elevational view of the prior art, showing the hose being pulled, which will tip over the acetylene tank.

FIG. **3** is an elevational view with parts broken away of an acetylene tank with the instant invention installed thereto.

FIG. **4** is a perspective view taken in the direction of arrow **4** in FIG. **3**.

FIG. **5** is a cross sectional view taken along line **5**—**5** in FIG. **4**.

FIG. **6** is a perspective view partly exploded, taken in the direction of arrow **6** in FIG. **5**.

FIG. **7** is a perspective view with parts broken away of the instant invention per se, taken in the direction of arrow **7** in FIG. **4**.

FIG. **8** is a cross sectional view taken along lines **8**—**8** in FIG. **7**.

FIG. **9** is a cross sectional view taken along line **9**—**9** in FIG. **8**.

FIG. **10** is a perspective view similar to FIG. **4**, showing the instant invention with a cover over the wound up hose on the rotatable spool.

Similar reference characters denote corresponding features consistently throughout the attached drawings.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Turning now descriptively to the drawings, in which similar reference characters denote similar elements throughout the several views, FIGS. **1** and **2** shows the prior art, which is an acetylene tank **12**, having a regulator **14**, a hose **16** and an operating handle **18**. The hose **16** in FIG. **1**, is coiled about the regulator **14**. In FIG. **2**, the hose **16** is being pulled accidentally and tipping over the acetylene tank **12**.

FIGS. **3** through **10** illustrate the instant invention being a hose coiling apparatus **20** for the acetylene tank **12**, having the regulator **14**, the hose **16** and the operating handle **18**. The apparatus **20** comprises a structure **22**, for safely storing the hose **16** in a wound up manner. A facility **24** is for mounting the storing structure **22** onto the acetylene tank **12**. A person can grip the operating handle **18** and pull the hose **16** out of the storing structure **22** for use, thereby preventing the hose **16** from getting tangled, pinched and pulled accidentally.

The storing structure **22** includes a pair of stationary members **26**, **28**. A rotatable spool **30** is between the stationary members **26**, **28**, so that the hose **16** can be wound up upon the rotatable spool **30**. The storing structure **22** further includes a pair of ball bearings **32**. Each ball bearing **32** is located between one stationary member **26**, **28** and end of the rotatable spool **30**.

The swivel connector **34** is centrally located on the first stationary member **26**, so as to fluidly attach a short piece **36** of the hose **16** extending from the regulator **14** to a long piece **38** of the hose **16** wrapped about the rotatable spool **30**. A pair of rewind coil springs **40** are also provided. Each rewind coil spring **40** is located in one stationary member **26**, **28** and is connected between the stationary member **26**, **28** and the rotatable spool **30**. When the long piece **38** of the hose **16** is pulled off of the rotatable spool **30**, it can be automatically rewound upon the rotatable spool **30**, when the operating handle **18** is released.

The second stationary member **28** opposite from the first stationary member **26** with the swivel connector **34** has a central aperture **42** therethrough. The rotatable spool **30** has an internal socket **44** adjacent the second stationary member **28**. A crank handle **46** fits through the central aperture **42** in the second stationary member **28** and into the internal socket **44**. A person can manually rewind the rotatable spool **30** with the crank handle **46**.

The mounting facility **24** is a belt assembly **48**, which extends from the stationary members **26**, **28** and about the acetylene tank **12**. The belt assembly **48** consists of a pair of arms **50**. Each arm **50** is attached to one stationary member **26**, **28** and extends rearwardly and downwardly at an angle

therefrom. A strap **52** extends about the acetylene tank **12**. Equipment **54** is for attaching the ends of the strap **52** to the ends of the arms **50**.

The strap **52** includes a clamp fastener **56**, to secure the strap **52** in a tight manner about the acetylene tank **12**. The attaching equipment **54** includes a pair of release buckles **58**, which hold the ends of the arms **50** to the ends of the strap **52**. Each arm **50** is fabricated out of a durable flexible material **60**. Each strap **52** is fabricated out of the durable flexible material **60**.

The storing structure **22** further includes each stationary member **26**, **28** being disk shaped. A cylindrical cover **62**, as shown in FIG. **10**, extends between the stationary members **26**, **28** over the rotatable spool **30**. The cylindrical cover **62** has a hole **64** therethrough to allow the long piece **38** of the hose **16** wrapped upon the rotatable spool **30** to exit through the cylindrical cover **62**, when the operating handle **18** is pulled.

LIST OF REFERENCE NUMBERS

12 acetylene tank
14 regulator
16 hose
18 operating handle
20 hose coiling apparatus **20**
22 storing structure
24 mounting facility
26 first stationary member of **22**
28 second stationary member of **22**
30 rotatable spool of **22**
32 ball bearing of **22**
34 swivel connector on **26**
36 short piece of **16**
38 long piece of **16**
40 rewind coil spring in **26**, **28**
42 central aperture in **28**
44 internal socket in **30**
46 crank handle
48 belt assembly for **24**
50 arm of **48**
52 strap of **48**
54 attaching equipment of **48**
56 clamp fastener on **52**
58 release buckle of **54**
60 durable flexible material for **50**
62 cylindrical cover
64 hole in **62**

It will be understood that each of the elements described above, or two or more together may also find a useful application in other types of methods differing from the type described above.

While certain novel features of this invention have been shown and described and are pointed out in the annexed claims, it is not intended to be limited to the details above, since it will be understood that various omissions, modifications, substitutions and changes in the forms and details of the device illustrated and in its operation can be made by those skilled in the art without departing in any way from the spirit of the present invention.

Without further analysis, the foregoing will so fully reveal the gist of the present invention that others can, by applying current knowledge, readily adapt it for various applications without omitting features that, from the standpoint of prior art, fairly constitute essential characteristics of the generic or specific aspects of this invention.

What is claimed is new and desired to be protected by Letters Patent is set forth in the appended claims:

1. A hose coiling apparatus for an acetylene tank having a regulator, a hose and an operating handle located at the top of said tank, said apparatus comprising:

a) means for safely storing the hose in a wound up manner mounted on the side of said tank near the top thereof adjacent said regulator;

b) said mounting means comprising a readily removable belt assembly surrounding said tank and a pair of spaced, arms extending downwardly and outwardly from said belt assembly, said belt assembly including a strap extending about said tank, means comprising release buckles for attaching, the ends of said strap to said arms, and releasable clamp fastener means for securing said strap about said tank; and

c) said storing means comprising a pair of first and second stationary members attached to said arms, a rotatable spool extending between said stationary members on which said hose is wound, a pair of ball bearings in which each said ball bearing is located between one said stationary member and an end of said rotatable spool, swivel connector means centrally located on said first stationary member for fluidly connecting a short piece of hose extending from said regulator to the end of the hose wrapped about said rotatable spool, rewind spring means located in each said stationary means connected between said stationary member and said rotatable spool so that when the hose on said rotatable spool is pulled off said spool said spring means gets wound up and will automatically rewind the hose on said spool when said operating handle is released, a central aperture formed in said second stationary member, an internal socket adjacent said second stationary member and crank handle means passing through said central aperture and terminating in said internal socket for manually rewinding said rotatable spool.

2. A hose coiling apparatus as recited in claim **1**, wherein said storing means further includes:

a) each said stationary member being disk shaped; and

b) a cylindrical cover extending between said stationary members over said rotatable spool, said cylindrical cover having a hole therethrough to allow the long piece of the hose wrapped upon the rotatable spool to exit through said cylindrical cover, when the operating handle is pulled.

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