(No Model.) 2 Sheets—Sheet 1.

E. W. VACHER.

SPOUT CONNECTION FOR CANS AND THE LIKE.

No. 389,488. Patented Sept. 11, 1888.

FIG. 1.

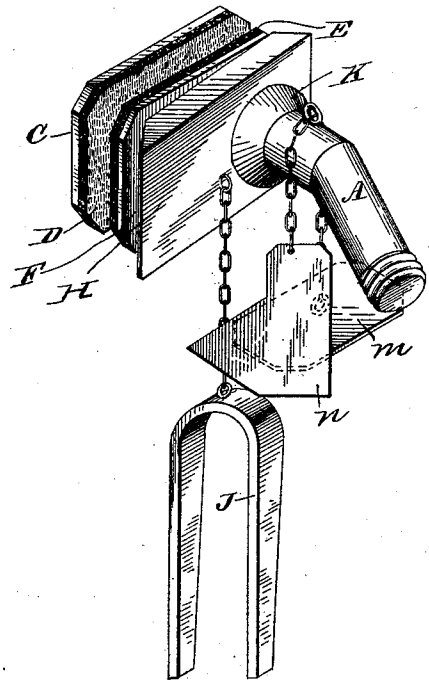
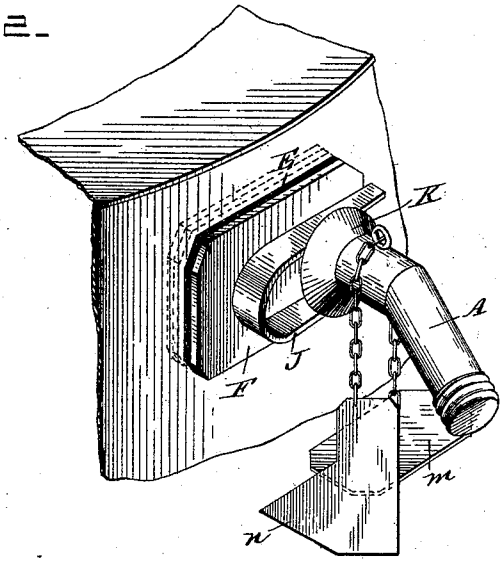


FIG. 2.



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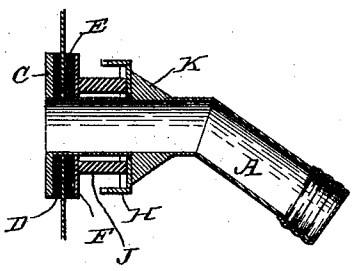
(No Model.) 2 Sheets—Sheet 2.

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FIG. 3.



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UNITED STATES PATENT OFFICE.

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SPOUT-CONNECTION FOR CANS AND THE LIKE.

SPECIFICATION forming part of Letters Patent No. 389,488, dated September 11, 1888.

Application filed April 2, 1888. Serial No. 269,376. (No model.)

To all whom it may concern:

Be it known that I, ERNEST W. VACHER, a subject of Queen Victoria, of Great Britain, residing at Moore's Station, in the county of Frio and State of Texas, have invented certain new and useful Improvements in Spout-Connections for Cans and the Like; 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.

The object of my invention is to secure a tight joint between a vessel and a faucet, spigot, spout, or the like; and a spigot or spout made in accordance with my invention can be easily and quickly applied to any vessel desired, and can also be removed with facility, and at the same time can be manufactured at a nominal price. It is designed more particularly to be used in connection with metallic vessels.

It has been necessary heretofore, in order to obtain a leakless spigot or spout connection with vessels, to use solder after the spout has been inserted into the aperture in the wall of the vessel. This is always troublesome, and, owing to one not always having the solder and necessary tools handy, is difficult, and when once applied and soldered it is equally difficult to remove, and often impossible, except by breaking or otherwise injuring the spout or spigot and sometimes the vessel. It is these and other difficulties which I have endeavored to and have overcome in my invention, by the use of which one can at all times secure a tight joint without the use of solder or the like, and at the same time it may be easily removed and used again and again without injury to any of the parts of the device.

My invention can best be explained and understood by reference to the accompanying drawings, in which—

Figure 1 is a perspective view of the device made in accordance with my invention. Fig. 2 is a perspective view of the device as applied to the wall of a vessel, only a small portion of said wall being shown. Fig. 3 is a central longitudinal section of my device.

Referring to the drawings, A represents the spout or tube designed to convey the fluid contained in the vessel, and it may be provided with a screw or other cap at one end. To that end which is designed to be inserted into the vessel I secure a plate of metal, C, preferably of an oblong rectangular shape. I make the aperture in this piece for the reception of the end of the spout near one of the short edges of said piece C. The face of this piece which is designed to come in contact with the wall of the vessel when the device is applied is lined with felt or similar material, D.

The spout is connected near one of the short sides of the plate C, because by so doing the hole in the can need not be so large as if it were placed in the center—*i. e.*, the farther from the center and nearer the short edge of the piece C the spout is placed the smaller the hole in the wall of the can may be made relatively to the size of the piece C, and when the plate is placed inside of the can it completely covers the hole and for some distance around; hence the felt need not be larger than the plate, as has been necessary heretofore in order to entirely close the said aperture. This is very desirable, because if the felt or other material which has heretofore been used extends beyond the plate it will absorb to a greater or less degree the fluid contained in the vessel, and will swell, making it very difficult to extract from the can when wishing to change the spout. Indeed, frequently one has to wait for the felt to dry out; whereas by making the device in my preferred way the piece will, as said above, extend beyond the aperture, and hence the felt need not exceed the dimensions of the said piece C, and when the device is in place and the wedge applied the pressure exerted upon the felt by the said plate C prevents any absorption by said felt; hence swelling cannot take place, and by having the felt secured to the plate there is no trouble in removing the device, as the use of hooks, &c., is done away with.

The spout A is provided with a shoulder, K.

The device is also provided with a plate of metal, H, which also has an aperture through which the spout or spigot is to pass, and which abuts against the shoulder K. This plate H is similar in contour to the plate C, except, preferably, it should have two of its opposite parallel sides bent, as seen in the drawings, to

assist and assure the proper position of the V-shaped wedge J.

On the spout or spigot A, I place another plate of metal, F, which is also preferably made the shape of the plate C, in order that the application of the device to the wall of the can will not bend or otherwise disfigure the wall from unequal pressure, as is the case when both are not of the same contour, especially if one of the plates does not extend beyond the edge of the aperture in the can. This plate F also has an aperture through which the spout or spigot is to be inserted. Upon that face of the plate F which when the device is applied will be in contact with the wall of the vessel I secure felt or similar material, E. The apertures in all three of these pieces, C, H, and F, are preferably made near one of the short edges to facilitate the applying of the device to the wall of the can or other vessel, as has been explained hereinbefore.

The plate H, I find in practice to be preferably secured against the shoulder K instead of simply abutting against it, and when thus secured it should have a slight slanting direction, so that the wedge J when applied may make even pressure against the plate F.

It is evident that the shoulder K may be made large enough to afford the proper bearing for one side of the wedge.

In Fig. 7 is shown the removable and adjustable V-shaped wedge J in the form that I generally made it; but of course its shape may vary considerably, and in Fig. 2 it is shown in its place when the device is applied.

By the use of a removable wedge I do away with the necessity of having to resort to the use of wrenches, screw-drivers, or other instruments when wishing to remove the device from the can, and rusting does not practically hinder such removal, and when the device gets worn all that is necessary is to tighten the wedge a little more, or sufficient to compensate for such wear.

In practice, and in order to make the device complete in itself, I attach, as seen in the drawings, a pattern, *m*, and a cutter, *n*. The size of the pattern must be such that the plate C may be introduced through any aperture made the size of said pattern. The exact size of this pattern is determined as follows: Take the width of one of the short sides of the plate C as the width of one side of the pattern; then for the other dimension I measure the distance from that short edge which is nearest to the opening of the spout to said opening, to which I add the width of said aperture. This will give me the correct length of the other side of the pattern; and if an aperture is cut in the wall of the vessel according to this measurement the plate C can be, by the way described hereinafter, easily inserted therethrough. Thus it becomes apparent why it is very desirable to have the spout connected near the short side of plate C.

The preferred form of the various parts of the device is illustrated in the drawings; but manifestly the same may be greatly varied without departure from my invention.

It now only remains for me to describe the mode of applying my device, and in so doing I shall presume that the different parts have been made according to the preferred forms indicated above. At any suitable place upon the wall of the vessel to which the device is desired to be secured I cut by means of the cutter an aperture the size of the pattern. Then taking the short edge of the piece C, which is farthest and parallel to the edge which is nearest the spout A, I insert it into the aperture made in the wall in such manner that the said edge will coincide with that side of the aperture which was cut from its measurement, and so that the wall will come between the plates C and F. It will be seen that the rear end has yet to be passed into and through the same. This is done by a further movement of the device. It now remains to place the parts in position for use. This is done by turning the whole device about one-fourth of a circle. This makes the plates C and F completely cover the aperture made in the wall of the vessel.

It may be noted here that by making the piece C of an oblong rectangular shape and having the spout connected near one of its short sides I can insert it into the vessel by the way above indicated through an aperture which is much smaller than the plate itself. Now, if I insert the wedge between the plates H and F, and as the plate H abuts or, as preferred, is secured to the shoulder K, the wedge as it is pushed inward forces the plates C and F together, and as the plates C and F are lined with felt (preferably) or other similar material they firmly hold the device to the vessel, and the felt which lines the faces of the plates C and F, which comes in contact with the wall of the vessel, will counterbalance, as it were, the irregularities in the contour or roughness of the cut of the aperture in the wall, and thus I obtain a tight joint.

To remove the device I have simply to withdraw the wedge by giving it several taps with anything handy, and by a movement of the device opposite to that which I described above in order to insert it I remove it without any difficulty.

Having described my improvements and the best way now known to me of carrying the same into effect, what I claim herein as new and of my own invention is—

1. In a spout-connection for cans or other vessels, the combination of the spout having a shoulder thereon, an oblong plate faced with felt or similar material attached at or near one of its short sides to the end of said spout, and a removable wedge, substantially as and for the purposes hereinbefore set forth.

2. The combination of the spout A, having a shoulder, K, thereon, the oblong plate C, lined with felt, D, secured at or near one of its short edges to said spout, and the plate F, lined with felt, E, placed on said spout between the plate C and the shoulder K, and a removable wedge, substantially as and for the purposes hereinbefore set forth.

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

ERNEST W. VACHER.

Witnesses:
JOHN B. MCMAHON,
L. C. A. VACHER.