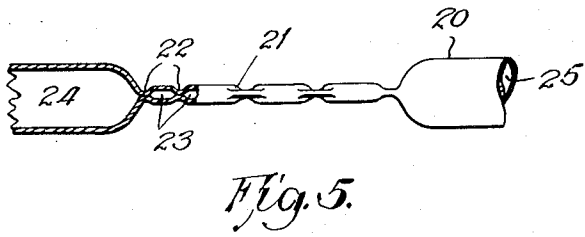
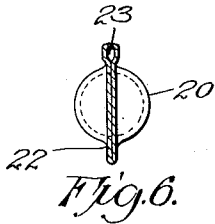
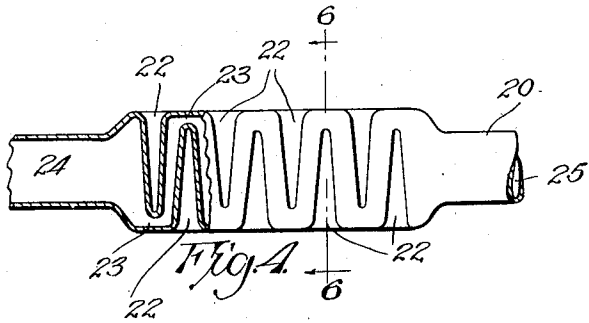
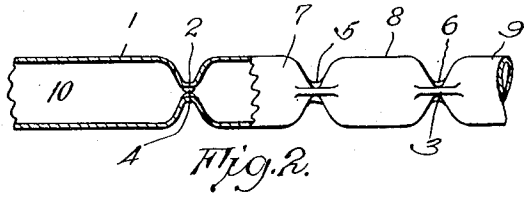
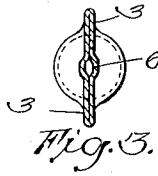
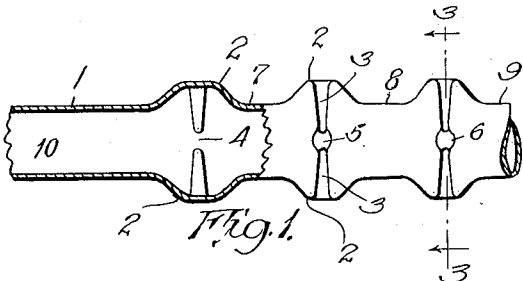


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T. J. LITTLE, JR
REFRIGERATING SYSTEM
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1,711,270



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REFRIGERATING SYSTEM.

Application filed September 28, 1926. Serial No. 138,814.

The object of my invention is to provide means for impeding the flow of refrigerant from the high pressure side of the refrigerating system and at the same time provide for steady and continuous flow from the high to the low pressure side.

Another object of my invention is to provide a cheap and easily constructed means for reducing the pressure of refrigerant as it flows from the high pressure to the low pressure side of the system by impeding the flow of the refrigerant.

With these and other objects in view, my invention consists in the arrangement, combination and construction of the various parts of my improved device, as described in the specification, claimed in my claims and shown in the accompanying drawing, in which:

Fig. 1 is a plan view of my device partly in section.

Fig. 2 is a side elevation of my device partly in section.

Fig. 3 is a view taken on line 3—3 of Fig. 1.

Fig. 4 is a plan view of a modification of my device partly in section.

Fig. 5 is a side elevation of a modification of my device partly in section.

Fig. 6 is a view taken on line 6—6 of Fig. 4.

I have shown in Figs. 1 and 2 a metal tube 1 having portions 2 thereof flattened in such a manner that the opposite walls of the tube 1 are pressed tightly together at the flattened portions as at 3 except at the centers thereof as at 4, 5 and 6 where sufficient space is left between the flattened walls of the tube to permit refrigerant to flow there-through, thus forming a series of chambers 7, 8 and 9 which are connected by the restricted passages 4, 5 and 6.

In Figs. 4 and 5 I have shown a tube 20 having a portion 21 thereof flattened until there is a relatively narrow space left between the depressed walls thereof. The depressed walls of the tube are then squeezed tightly together at spaced intervals as at 22, leaving passages 23 between the depressed walls at each end and along the sides of each of the depressions 22 of sufficient size to permit the flow of refrigerant in a circuitous path through the depressed portion 21 of the tube 20.

In operation refrigerant enters the portion 10 of the tube 1 under pressure, from the con-

denser of the refrigerating machine (not shown) and passes in reduced volume through passage 4 into chamber 7 where it expands somewhat and then continues in reduced volume through passage 5 into chamber 8 where it continues to expand and then in reduced volume through passage 6 into chamber 9 where it continues to expand and passes on to the expansion chamber of the refrigerating machine (not shown) where the expansion is completed. Thus, the impeded and reduced flow caused by the restricted passages 4, 5 and 6 and the successive expansion in chambers 7, 8 and 9 serves to reduce the pressure under which the refrigerant passes from the condenser to the expansion chamber, and the restricted passages 4, 5 and 6 hold back sufficient refrigerant to insure a steady flow in the desired amounts into the expansion chamber.

It is obvious that any desired number of the restricted passages 4, 5 and 6 and chambers 7, 8 and 9 may be provided.

In the modification shown in Figs. 4, 5 and 6 the refrigerant enters the portion 24 of the tube 20 from the refrigerant condenser (not shown) and passes in reduced flow through the winding and restricted passages 23 around the depressions 22 until it reaches the portion 25 of the tube 20 through which it passes to the refrigerant expansion chamber (not shown). The pressure on the refrigerant is thus reduced as it passes through the restricted passages 23, and sufficient is held back by the restricted passages to insure a steady flow at the desired rate into the expansion chamber.

It will be obvious that various changes may be made in the arrangement, combination and construction of the various parts of my improved device without departing from the spirit of my invention, and it is my intention to cover by my claims such changes as may be reasonably included within the scope thereof.

What I claim is:

1. In a mechanical refrigerating system, a pressure reducing device comprising a tube having a series of spaced indentations therein materially restricting the cross sectional area of said tube at spaced points, thereby forming a series of connected chambers therein having restricted inlet and outlet passages.

2. In a mechanical refrigerating system, a pressure reducing device comprising a tube

having a series of spaced transverse opposed indentations therein and having the indented walls of said tube compressed tightly together except at the center thereof, for providing restricted passages through said tube past each of said indentations.

3. In a mechanical refrigerating system, a pressure reducing device comprising a tube, a portion of the walls of which are deformed to materially reduce the cross sectional area thereof at such portion.

4. In a mechanical refrigerating system, a pressure reducing device comprising a tube, portions of the opposed walls of said tube being deformed into contact with each other whereby to materially restrict the cross sectional area of said tube at such portions.

5. A pressure reducing device for a mechanical refrigerating system comprising a tube, opposite side walls of which are dia-

metrically crushed together except for a limited space providing a restricted passage through said tube.

6. A pressure reducing device for mechanical refrigerating systems comprising a tube having its opposite walls deformed at spaced points into contact with each other except at a limited space in such area of contact whereby to form spaced restrictions in said tube.

7. A pressure reducing device for refrigerating systems comprising a tube the opposite side walls of which are diametrically deformed at spaced points in the length of said tube into complete contact with each other except for a limited distance on said diameter whereby to form a series of chambers connected by restricted passages.

THOMAS J. LITTLE, JR.