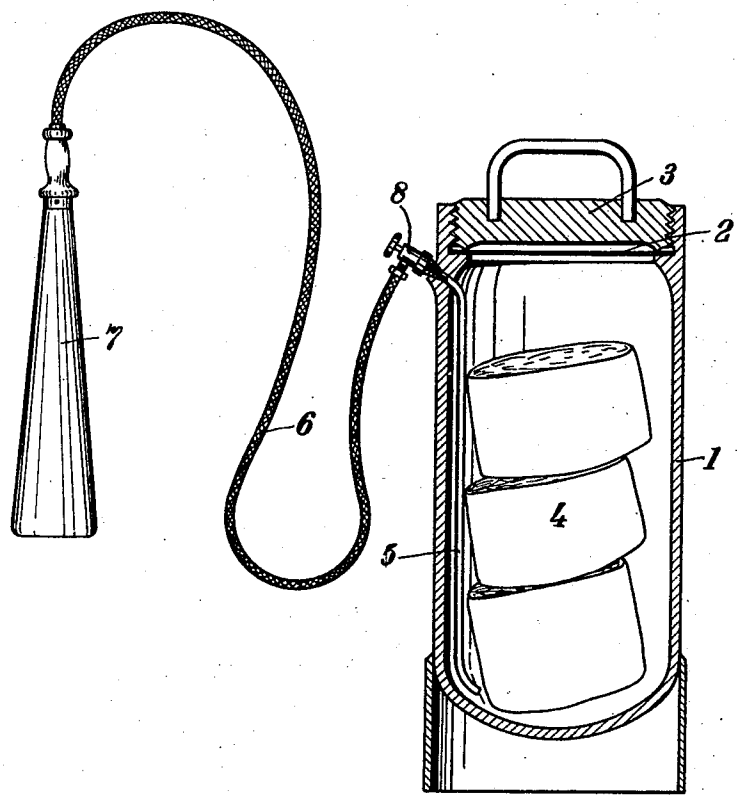
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FIRE EXTINGUISHING SYSTEM

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FIRE EXTINGUISHING SYSTEM

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1 Claim. (Cl. 169—11)

The invention relates to a fire extinguishing system of the type employing carbon dioxide which is discharged through a restricted orifice and a special shield from a container of liquid carbon dioxide to transform the liquid into carbon dioxide snow.

The liquid carbon dioxide is commonly stored in steel containers under high pressure. As the capacity of such steel containers is limited it is necessary to provide a great number of such containers in order to produce snow in sufficient quantities when desired. This requirement, the transport, as well as the attaching and detaching of the flasks to and from the snow producing shields cause costs and loss of time.

The object of the invention is to avoid such inconveniences and especially the danger caused by loss of time or insufficient stock of carbon dioxide.

One form of the invention is illustrated in the accompanying drawing which shows a side elevation partly broken away of a carbon dioxide snow extinguisher embodying the invention.

In the drawing there is shown at 1 a container adapted to hold a charge of liquid carbon dioxide. At the upper end the container 1 has a charging opening 2 with removable closure means 3 for filling it with solid carbon dioxide blocks 4. Such solid carbon dioxide blocks can on a large scale be purchased for instance in isolated cartons or casings. These cartons or casings are cheap and of low weight. The volume of the container 1 and the quantity of solid carbon dioxide must bear such a proportion that with the vaporizing of the carbon dioxide caused in a very short time by the heat passing through the metallic wall of the container, the triple point (60.88 lb. per sq. inch) is exceeded and therefore the solid carbon dioxide is converted into liquid carbon dioxide. It is important to obtain liquid carbon dioxide because only liquid carbon dioxide can be transformed into snow which is needed in fire extinguishing.

The carbon dioxide is discharged from the container 1 through a conduit formed by the siphon tube 5 extending to the bottom of the container 1, a flexible hose 6 and a snow producing shield 7. The siphon tube 5 is arranged near the inner wall of the container 1 so that it does not hinder the filling of the container with solid carbon dioxide blocks. The end of the siphon tube 5 is provided with a discharging valve 8.

I claim:

The method of dispensing carbon dioxide snow as a fire extinguishing medium, which comprises confining solid carbon dioxide in an air tight space in sufficient quantity with respect to the space so as to develop a pressure greater than 60.88 lbs. per square inch, allowing the solid carbon dioxide to melt and vaporize and thereby to develop said pressure, and thereafter venting liquid carbon dioxide from the lower part of the space and discharging same and thus producing carbon dioxide snow.

RUDOLF KÜRTH.