(No Model.)

C. C. HUTCHINSON.

APPARATUS FOR REFRIGERATING ROOMS.

No. 348,523. Patented Aug. 31, 1886.

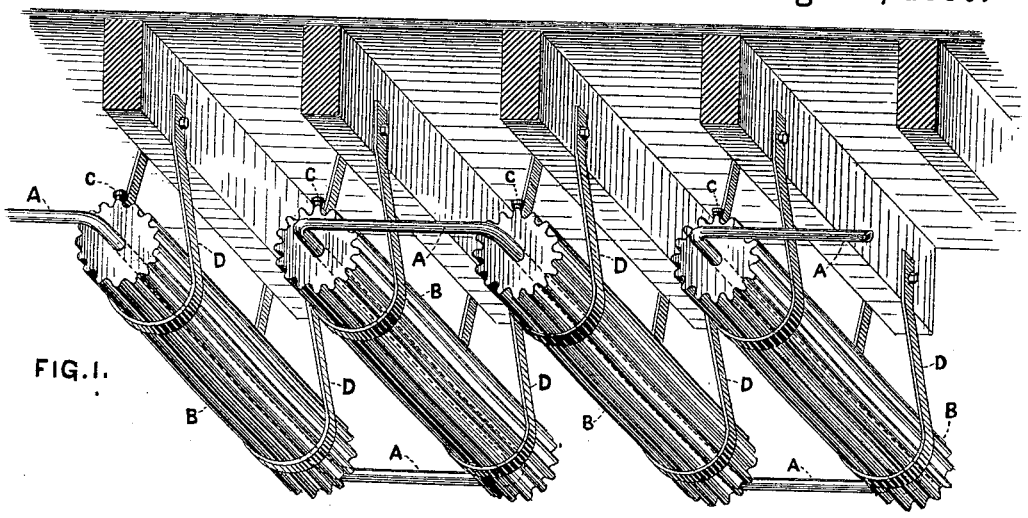


FIG. 1.

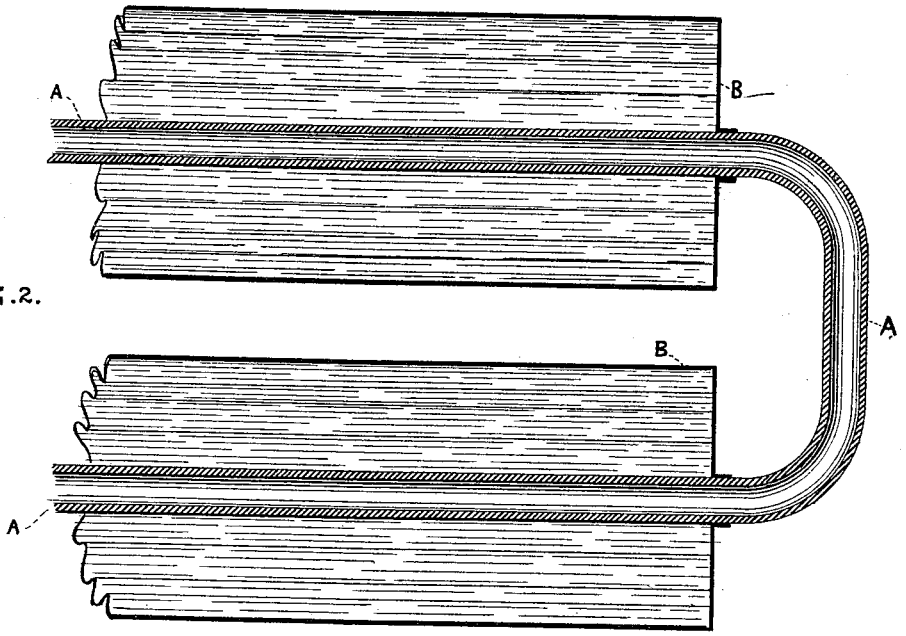
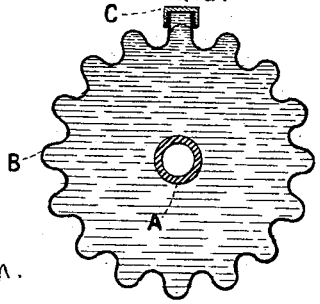


FIG. 2.

FIG. 3.



WITNESSES:

F. W. West

Henry A. Pauls.

INVENTOR:

Clinton C. Hutchinson,

By Hollingsworth & Daly

Attorneys.

UNITED STATES PATENT OFFICE.

CLINTON C. HUTCHINSON, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO THE I. P. MORRIS COMPANY, OF SAME PLACE.

APPARATUS FOR REFRIGERATING ROOMS.

SPECIFICATION forming part of Letters Patent No. 348,523, dated August 31, 1886.

Application filed November 20, 1885. Serial No. 183,401. (No model.)

To all whom it may concern:

Be it known that I, CLINTON C. HUTCHINSON, of Philadelphia, in the State of Pennsylvania, have invented certain new and useful Improvements in Apparatus for Refrigerating Rooms, &c.

The following is a specification of my said improvements, reference being had to the accompanying drawings, wherein—

Figure 1 represents a portion of the system or apparatus, which, in this instance, is suspended from the ceiling of a room. Fig. 2 represents, on a larger scale, a sectional longitudinal section through a part of the apparatus; and Fig. 3, a transverse section of such part.

In cases where ice-machines are used intermittently—as, for instance, in some breweries where it is only intended to run the machine during two or three days in each week—it is highly desirable that a means should be provided for maintaining a permanent refrigeration during the intervals when the machinery is not operating, in order that a uniform temperature may be preserved.

As is well known, the usual method of refrigerating rooms or vaults consists in providing them with a system of piping, through which a liquid previously refrigerated by means of an ice-machine is caused to circulate.

In the drawings annexed hereto I have shown a portion of such a system of piping, A, which is suspended by means of straps, D, from a ceiling of a room. The ice-machine and the pump for effecting circulation are not shown, as their construction is well understood. I arrange, preferably at intervals, around the pipes A enlarged closed chambers or vessels B, which fit tightly upon the pipes, so as to be capable of holding water around and in contact with them. These chambers I prefer to form, as shown, of corrugated sheet metal, in order that the expansion due to freezing may not burst them. Each chamber is provided with a cock or opening, C, through which water may be introduced, so as to surround the pipe A.

Upon the operation of the ice-machine, which may be of any ordinary construction, the liquid is refrigerated in the usual manner, and is then pumped through the pipes A. In the first instance it freezes the water within the receptacles B, and after the whole has been converted into a solid mass of ice the refrigeration is continued until the desired temperature has been obtained throughout the room. The operation of the ice-machine may then be stopped for a considerable time, during which the supply of ice within the receptacles B will continue the refrigeration of the room until it is completely melted, which may take several days, thus saving the necessity of a continuous operation of an ice-machine, where such would be undesirable.

I am aware that it is not new to construct an apparatus for cooling rooms by providing a series of open pipes, through which a non-congealable refrigerated liquid is allowed to flow; and I therefore do not broadly claim the combination, with a circulating-pipe for refrigerant, of an external pipe or trough in proximity thereto. Such former apparatus, however, were not intended nor adapted to provide a reservoir of ice which should maintain the refrigeration during periods of inaction of the machine.

Having thus described my inventian, I claim—

In an apparatus for cooling rooms, &c., the combination, with a suitable refrigerating-machine, of a system of circulating-pipes for refrigerant arranged within said room and communicating with said machine, a receptacle wholly or partially surrounding said pipe, and a body of congealable liquid contained in said receptacle and in contact with said piping, whereby during intermittent operation of said machine a reservoir of refrigerant is maintained within said room, substantially as set forth.

CLINTON C. HUTCHINSON.

Witnesses:
WM. H. MYERS,
FORREST W. WEST.