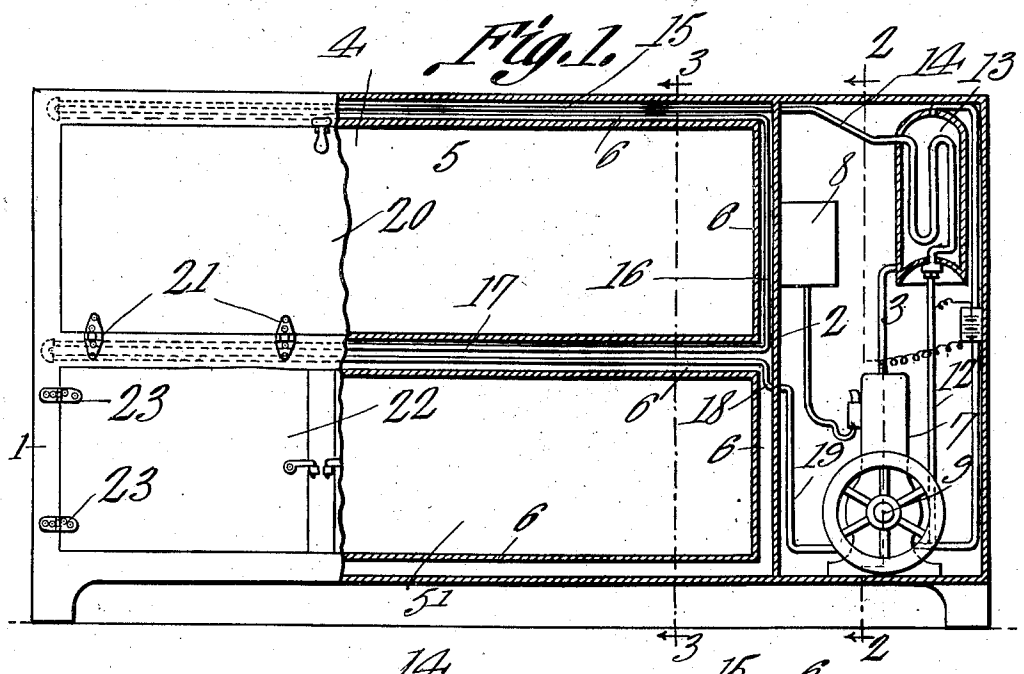
W. C. BRADY.

PORTABLE REFRIGERATING APPARATUS.

APPLICATION FILED SEPT. 16, 1911.

1,037,423. Patented Sept. 3, 1912.

Fig. 1.



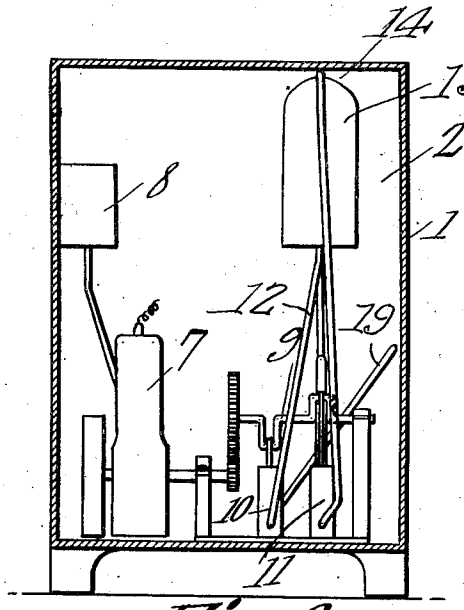


Fig. 2.

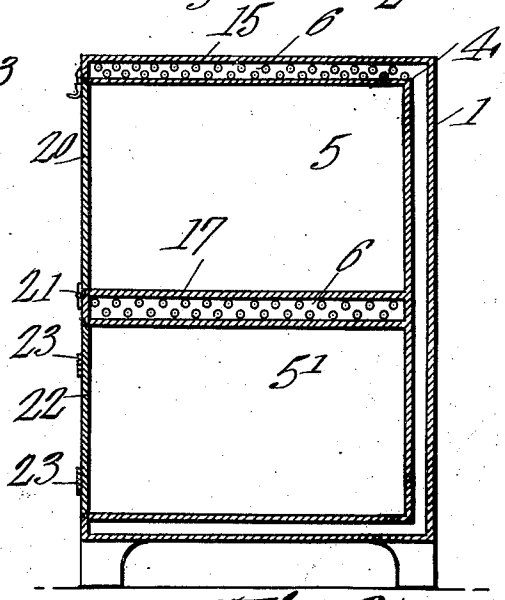


Fig. 3.

Witnesses

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UNITED STATES PATENT OFFICE.

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PORTABLE REFRIGERATING APPARATUS.

1,037,423. Specification of Letters Patent. Patented Sept. 3, 1912.

Application filed September 16, 1911. Serial No. 649,731.

To all whom it may concern:

Be it known that I, WILLIAM C. BRADY, a citizen of the United States, residing at Akron, in the county of Summit and State of Ohio, have invented a new and useful Portable Refrigerating Apparatus, of which the following is a specification.

The present invention relates to improvements in portable refrigerating apparatus, the primary object of the present invention being the provision of a refrigerating apparatus having a plurality of separated and isolated compartments disposed in a single casing with a separate compartment having a mechanical refrigerating apparatus for pumping or forcing the refrigerating fluid through a plurality of coils disposed between the respective compartments and in refrigerating position with relation thereto.

A further object of the present invention is the provision of a refrigerating plant adapted for use in homes, stores and the like, the same being so constructed as to dispense with the use of ice, and a mechanical or motor operated refrigerating mechanism being operably connected to produce a refrigerating effect upon compartments for holding articles to be refrigerated.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

In the drawings—Figure 1 is a front elevation of the complete plant a portion of the refrigerator plant and the motor compartment being in section to show the mechanism thereof. Fig. 2 is a section taken on line 2—2 of Fig. 1. Fig. 3 is a section taken on line 3—3 of Fig. 1.

Referring to the drawings, the numeral 1 designates a complete casing which is made rectangular in form usually and is provided with a vertical partition 2, which provides a vertical motor compartment 3 and the main refrigerating compartment 4, said main refrigerating compartment being provided or divided as shown with a plurality of compartments 5 and 5′ respectively which are so disposed as to provide the coil receptacles and insulating spaces 6 thereabout and therebetween.

Mounted upon the floor of the compartment 3 is a motor 7, the same either being an explosive motor as shown, an electric or spring motor as may be more convenient, and in this case the explosive motor has attached thereto the gasolene tank 8. Operably connected to the motor 7 is a crank shaft 9 which operates the air pump 10 and the ammonia pump 11, a conduit 12 leading from the ammonia pump to the ammonia condenser 13 disposed within the compartment 3 near the top thereof.

Leading from the condenser 13 is a pipe 14, which is in communication with the coil 15 disposed in the upper space 6 of the main compartment 4, a vertical pipe 16 connecting the coil 15 with a coil 17 disposed between the respective compartments 5 and 5′, while the end of the coil 17 is curved downwardly as at 18 and into the compartment 3 where it is connected to the circulating apparatus described.

A door 20 is hinged at 21 to permit access to the upper compartment 5 of the main compartment 4, while a plurality of doors 22 are hingedly connected at 23 to permit access to the lower compartment 5′ as may be desired. By this construction it will be seen that the upper and lower compartments are isolated from one another, whereby the odors from the refrigerated material in one will not affect that in the other, and thereby permit the storage of various materials within the same plant.

In the application of the present invention, the condenser 13 is of the usual structure and the pipe circuit is divided into a high pressure and a low pressure part, all of which is shown only in diagram in the present instance.

From the foregoing description taken in connection with the drawings, it is evident that by providing a compact refrigerating plant as herein specified, that the use of ice is dispensed with, and that by an economical use of ammonia or other refrigerating fluid or gas, the motor 7 will properly circulate the same through the coils 15 and 17 within the main compartment of the apparatus and thereby reduce the temperature in the compartments 5 and 5′ to the proper refrigerating temperature, the same being kept at such temperature during the circulation of

the refrigerating fluid through the coils. It is also evident that a spring motor or electric motor may be used in lieu of the explosive engine or motor shown herein, it simply being necessary to provide means for operating the pumps 10 and 11 to cause the proper circulation of the refrigerating fluid.

What is claimed is:

A portable refrigerating apparatus, having a main casing, a vertical partition dividing the same into a mechanism holding compartment and a refrigerating compartment, two superposed receptacles mounted in the refrigerating compartment and spaced from the bottom, top, rear and end walls of said compartment, said receptacles also being separated horizontally, hinged doors for said receptacles, and refrigerating coils occupying the spaces above and between the receptacles and substantially the full width and length of the receptacles.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

WILLIAM C. BRADY.

Witnesses:
FRED E. CHAPMAN,
JACOB I. BACHTEL.