REFRIGERATION
PART ONE
ICE-MAKING, COLD STORES AND BREWERIES

BRIAN ROBERTS
Memphis Machine Works
MEMPHIS, TENNESSEE
Builders of High Grade Small and Medium Size
Ice and Refrigerating Machines
One-Half to Twenty-Five Tons Daily Capacity.

ISBELL-PORTER COMPANY
ENGINEERS AND FOUNDERS
BUILDERS OF THE POLAR
Polar BRINE COOLERS and CONDENSERS For Compression Plants
Office and Works, NEWARK, N. J.

The Carbonic Anhydride System of Refrigeration
GIVES THE BEST ECONOMY AND EFFICIENCY WITH SAFETY IN OPERATION
No Odor No Explosions
OUR MACHINE AND LAND TYPE MACHINES OPERATING IN NUMEROUS PLANTS GIVE BEST RESULTS EVER OBTAINED.

KROESCHELL BROS. ICE MACHINE CO.
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“The Safety” Refrigerating Machine - Simplest, Strongest, Safest. All sizes.

Memphis Machine Works

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The Carbonic Anhydride System of Refrigeration

KROESCHELL BROS. ICE MACHINE CO.
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Information and illustrations are taken from the Heritage Group Archives with special acknowledgment to sources listed below. BMR, Budleigh Salterton 2021.

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ICE MAKING PLANT

Enclosed cooling tower in connection with an ice plant. The circulating water for the condensers is artificially cooled in this tower by a fan blast and used over again.

BREWERY LIQUOR COOLING

Sectional elevation of large absorption plant. In this system the rich liquor is circulated through the rectifier before passing through the exchanger, and thus some of the heat which would otherwise be carried off in the condensing water is saved.
PACKING HOUSE CHILL ROOMS

CAN ICE PLANT
ICE MAKING PLANT

Perspective plan view of an absorption ice plant showing the complete apparatus and piping.

MOULD ICE MAKING PLANT

Cross section of freezing tank, showing a centrifugal agitator. The gas suction is carried through the water storage tank thus forecooling the water.
Detail arrangement of freezing tank of an Eclipse ice plant, showing the arrangement of the cans with covers, also the brine agitator. The agitator is in the shape of a propeller which keeps up a continuous circulation of brine between bottom and top of tank.

Perspective view of the interior of a small “De La Vergne” ice plant.
PLATE ICE PLANT

Sectional elevations of freezing cells of an Eclipse plate ice plant. The ice plates are hoisted by means of the traveling hoist after being thawed off the freezing plates by passing hot brine through the coils. The freezing plates with their coils are shown in heavy black lines with the ice forming on both sides at them.

CREAMERY REFRIGERATING PLANT

Diagram showing Creamery Refrigerating Plant.

1. Ammonia Compressor
2. Ammonia Condenser
3. Liquid Receiver
4. Expansion Valve
5. Cold Storage
6. Direct Expansion Coil
7. Brine Tank
8. Station Scale Trap
9. Oil Trap
10. Brine Line to Cream Vat
11. Cream Vat
12. Brine Pump
13. Brine Return Line
14. Line Shaft
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CHICAGO, ILL. (October 13, 1883).

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DETOIT, MICHIGAN

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1878.
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Our Latest: Horizontal Tubular Brine Coolers and Condensers

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Henry Vogt Ice Machinery offers you these three things.

Simplicity, because it has only one moving part, the ammonia circulating pump, running 26 revolutions per minute.

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Louisville, Ky.
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and
Ammonia Fittings

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W. R. HUMPHREY, Secretary.

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Telegrams: "Zed, Grimsby."

Cold Stores Telephone: 2071.
Telegrams: "Ice, Grimsby."
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ARMOUR MEAT PLANT, ST LOUIS, MO.
ARMOUR MEAT PLANT, ST LOUIS, MO.
ARMOUR MEAT PLANT, ST LOUIS, MO.
COOLING THE SOUTH

Diesel driving refrigeration compressor
COOLING THE SOUTH

Fairbanks Morse diesel driving refrigeration compressor
COOLING THE SOUTH

Diesel engine with cover removed
COOLING THE SOUTH

Vilter Manufacturing refrigeration compressor
COOLING THE SOUTH

Refrigeration plant
COOLING THE SOUTH

Frick Company refrigeration plant
COOLING THE SOUTH

Refrigeration plant
BREWERY CELLARS COOLING

Cross-section of refrigerating plant for brewery, with fermenting and cooling cellars attached, showing the direct expansion system.