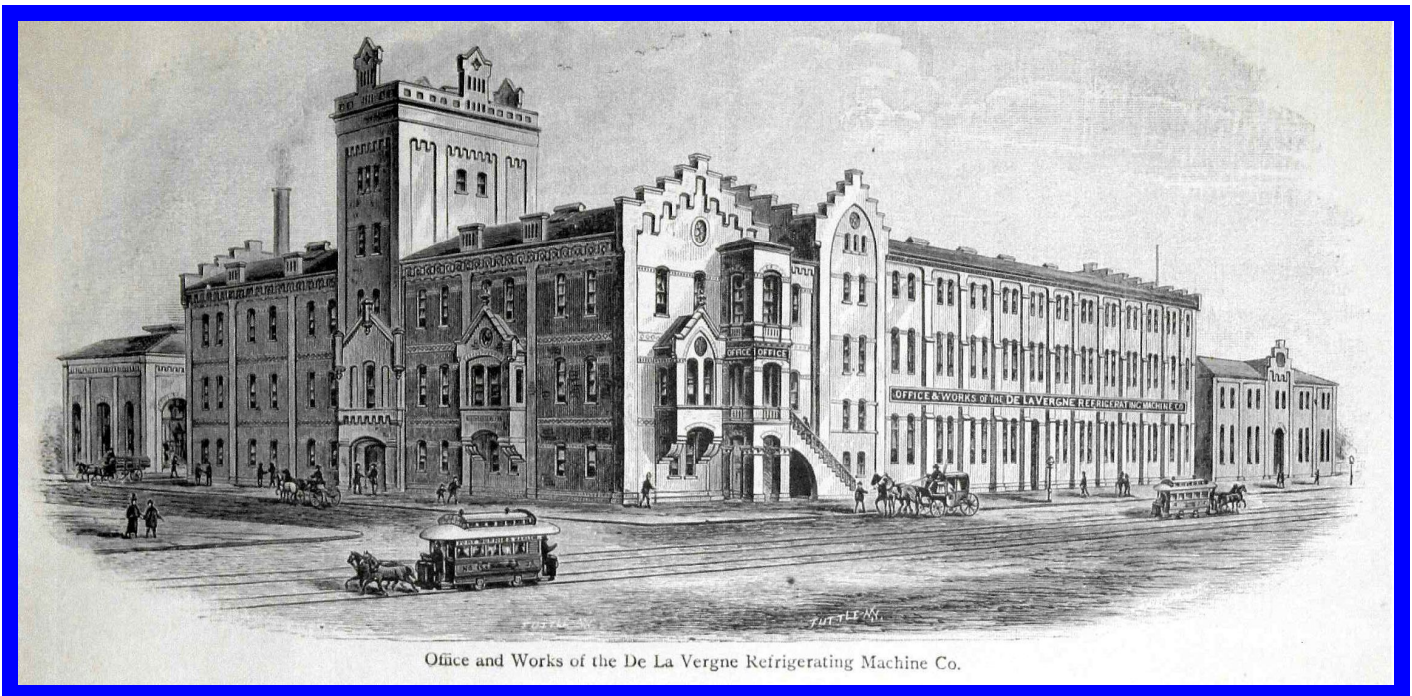


Refrigeration in American Breweries 1860-1920

Refrigeration Machinery



Office and Works of the De La Vergne Refrigerating Machine Co.

THE DE LA VERGNE REFRIGERATING MACHINE COMPANY
New York 1890 Catalogue

13
MECHANICAL REFRIGERATION

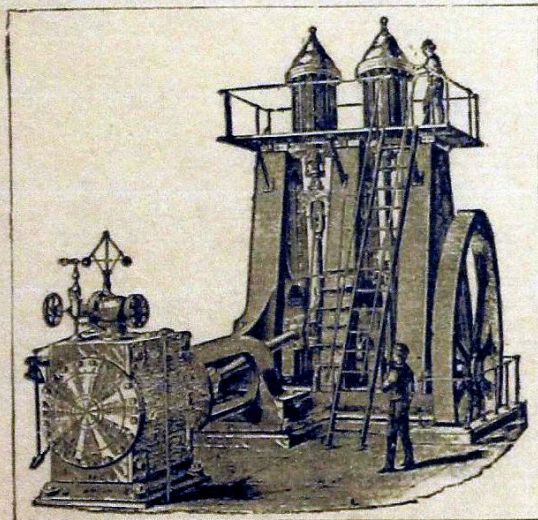
-BY THE-

PROCESSES AND APPARATUS

-OF-

THE DE LA VERGNE

REFRIGERATING MACHINE CO.,



MANUFACTURERS OF

REFRIGERATING AND ICE MACHINES

AND OF

ANHYDROUS AMMONIA.

OFFICE AND WORKS:

Foot of East 138th Street (Port Morris),
NEW YORK.

JOHN C. DE LA VERGNE, President.

LOUIS E. DE LA VERGNE, Vice-President.

C. H. CONE, Secretary.

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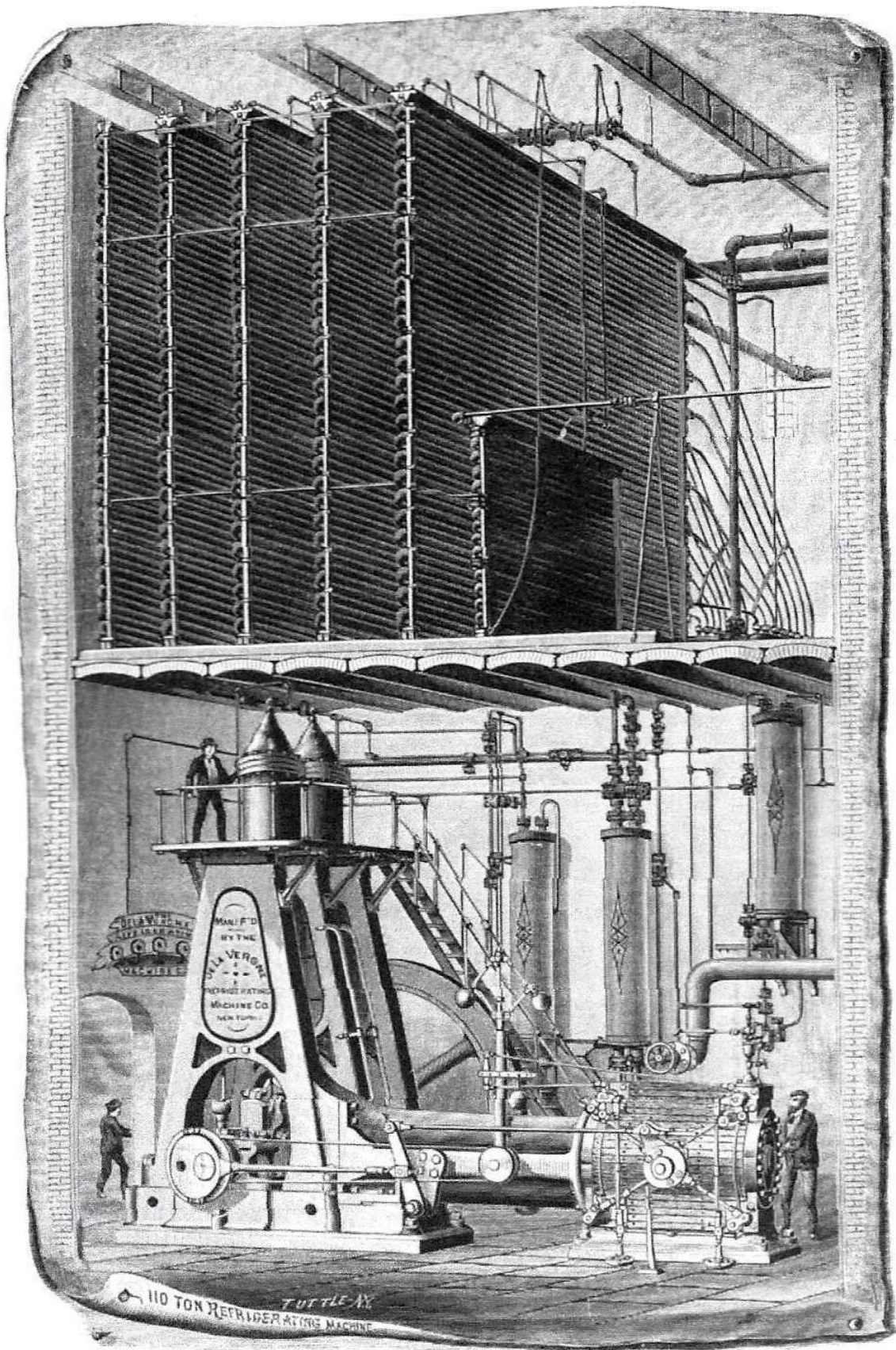
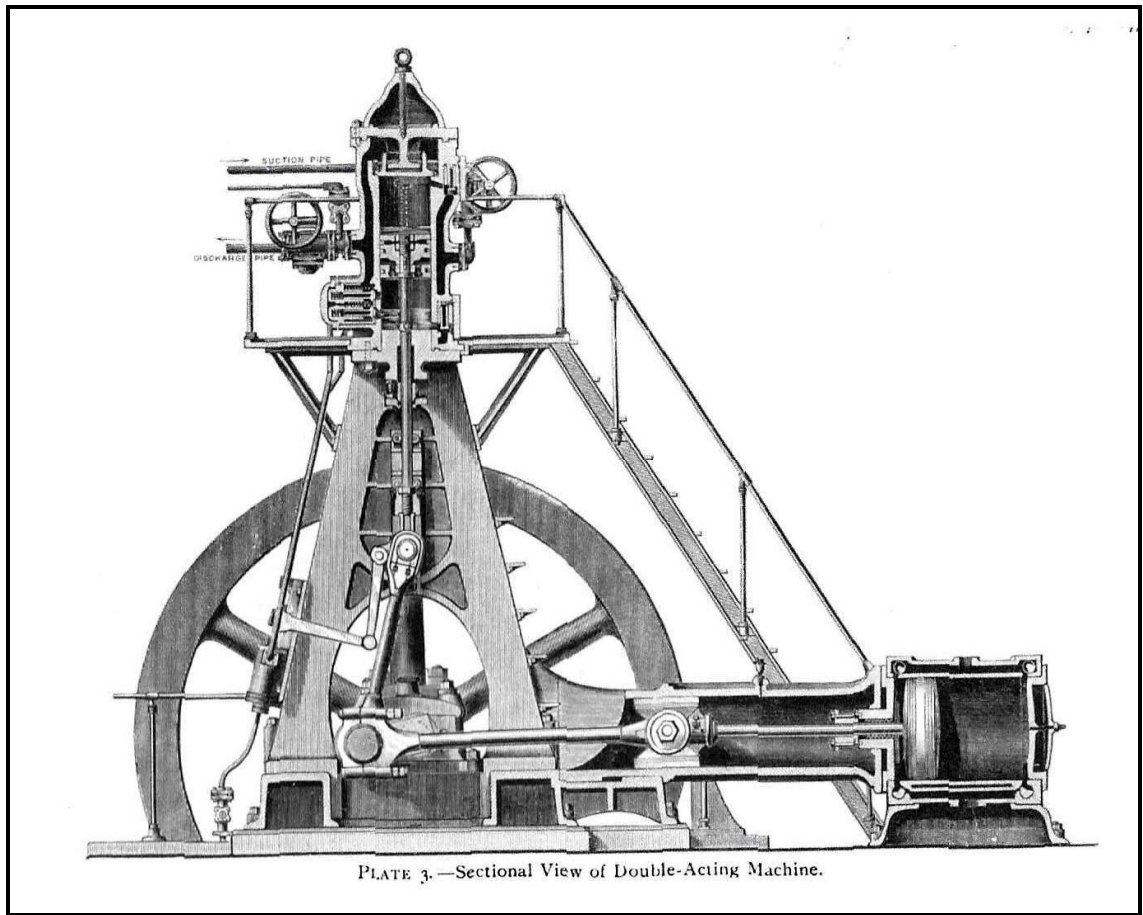
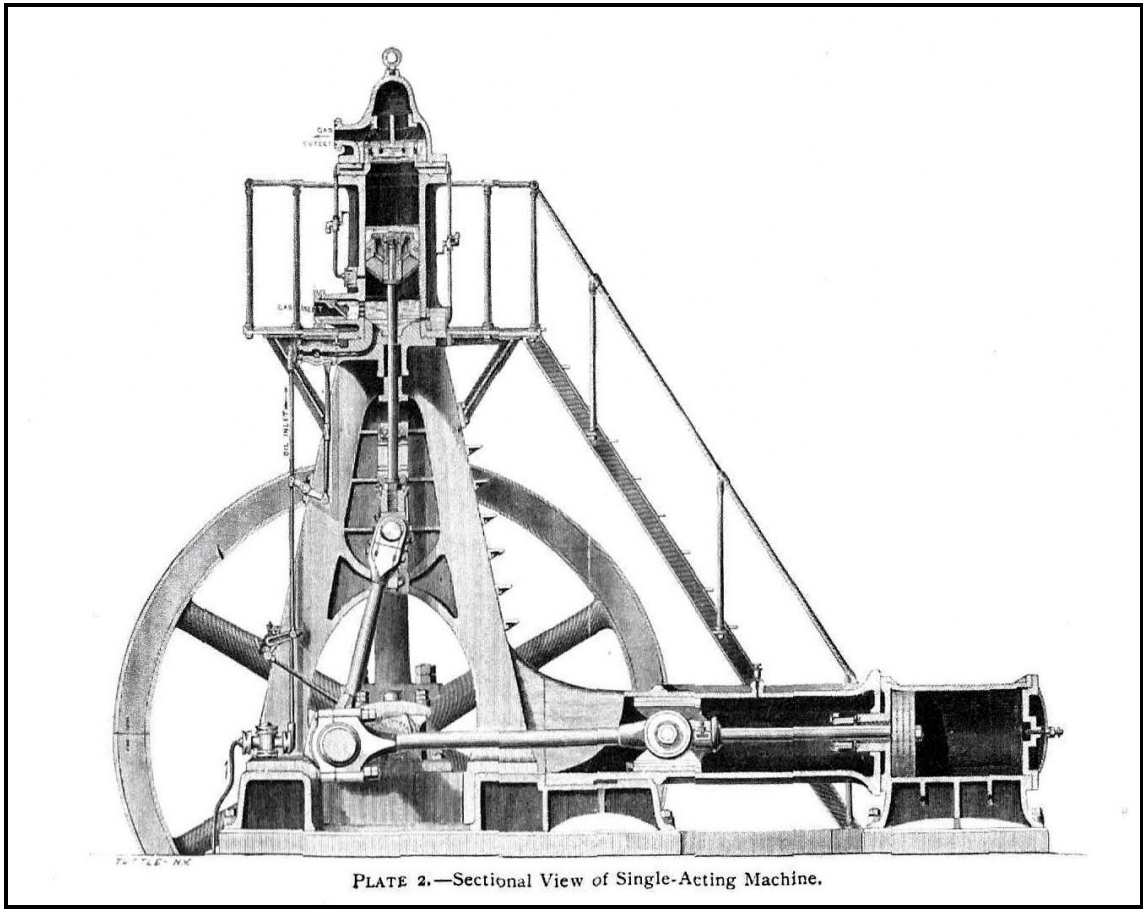


PLATE 8.—110-ton Machine, with Condensers on floor above.



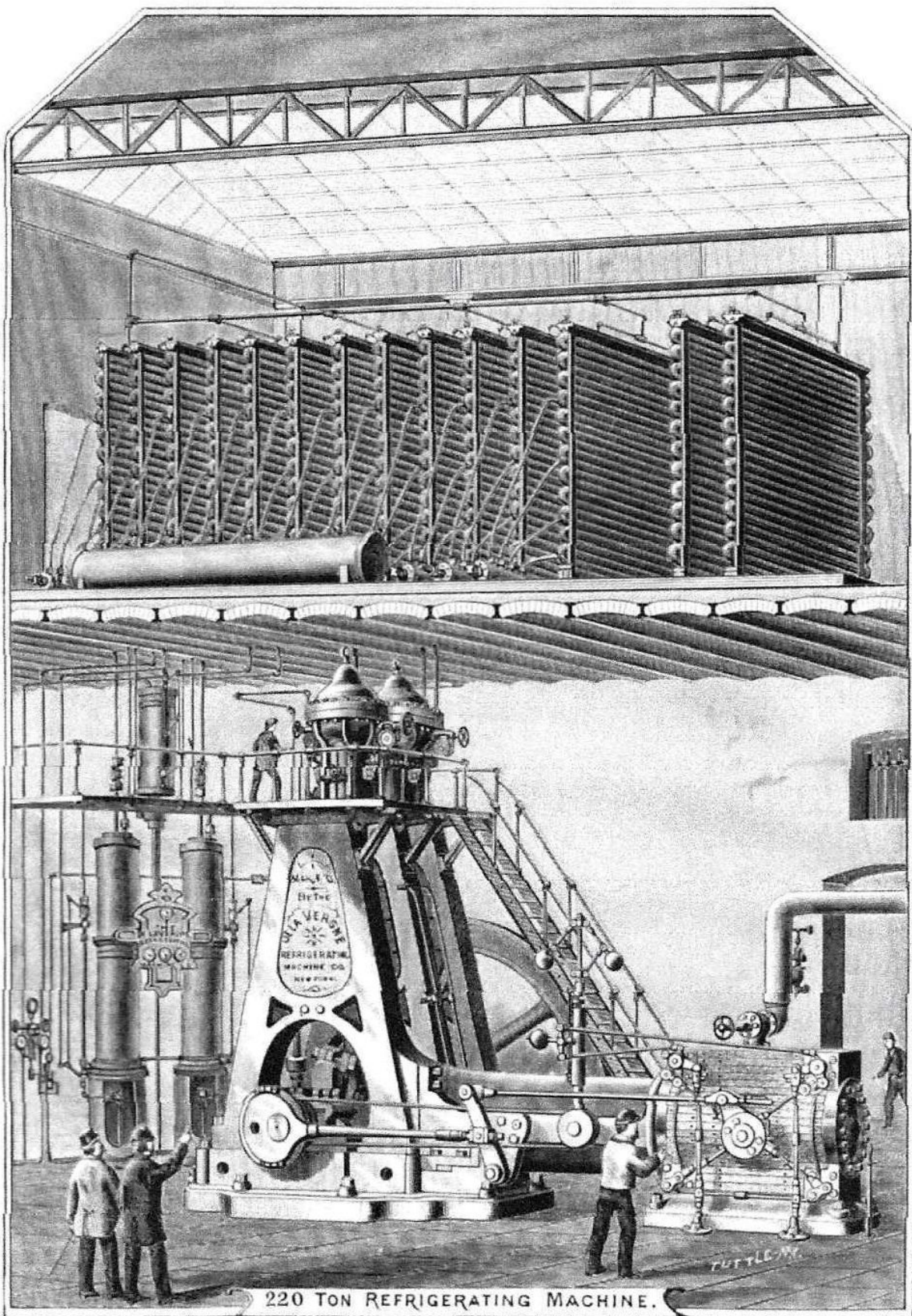


PLATE II.—220-ton Refrigerating Machine, with Condensers above.

**THE DE LAVERGNE,
REFRIGERATING PLANT.**

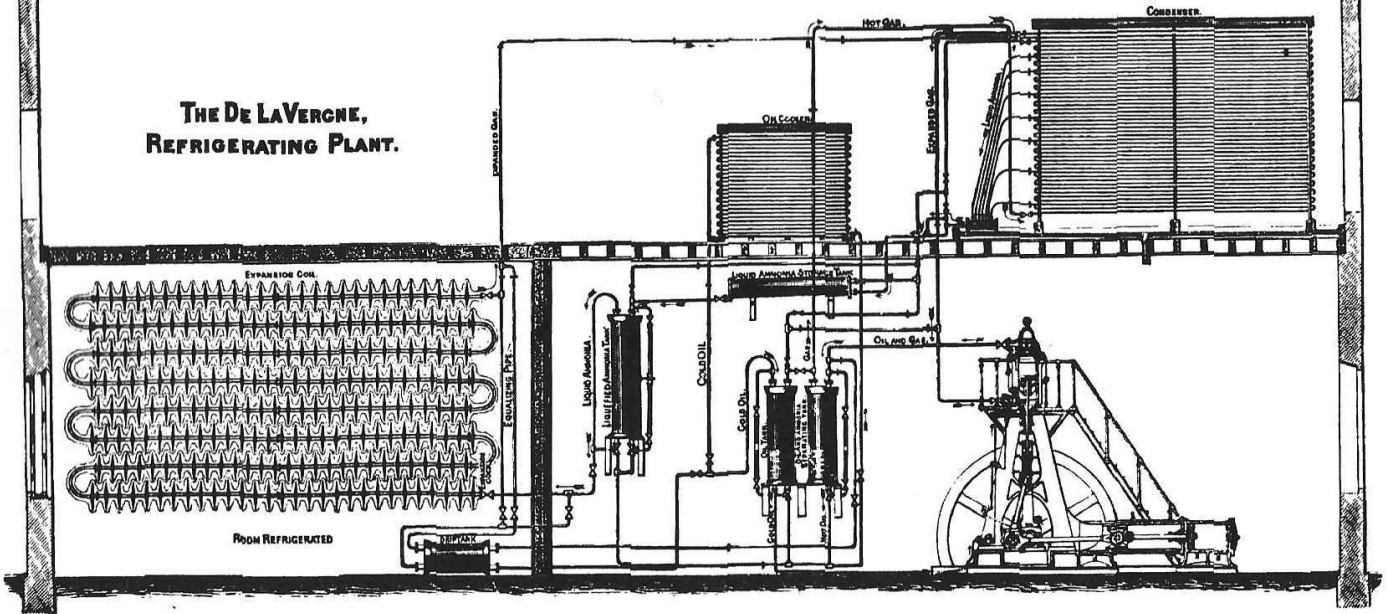


PLATE 9.—Refrigerating Plant—Old System.

**THE DE LAVERGNE
REFRIGERATING PLANT.**

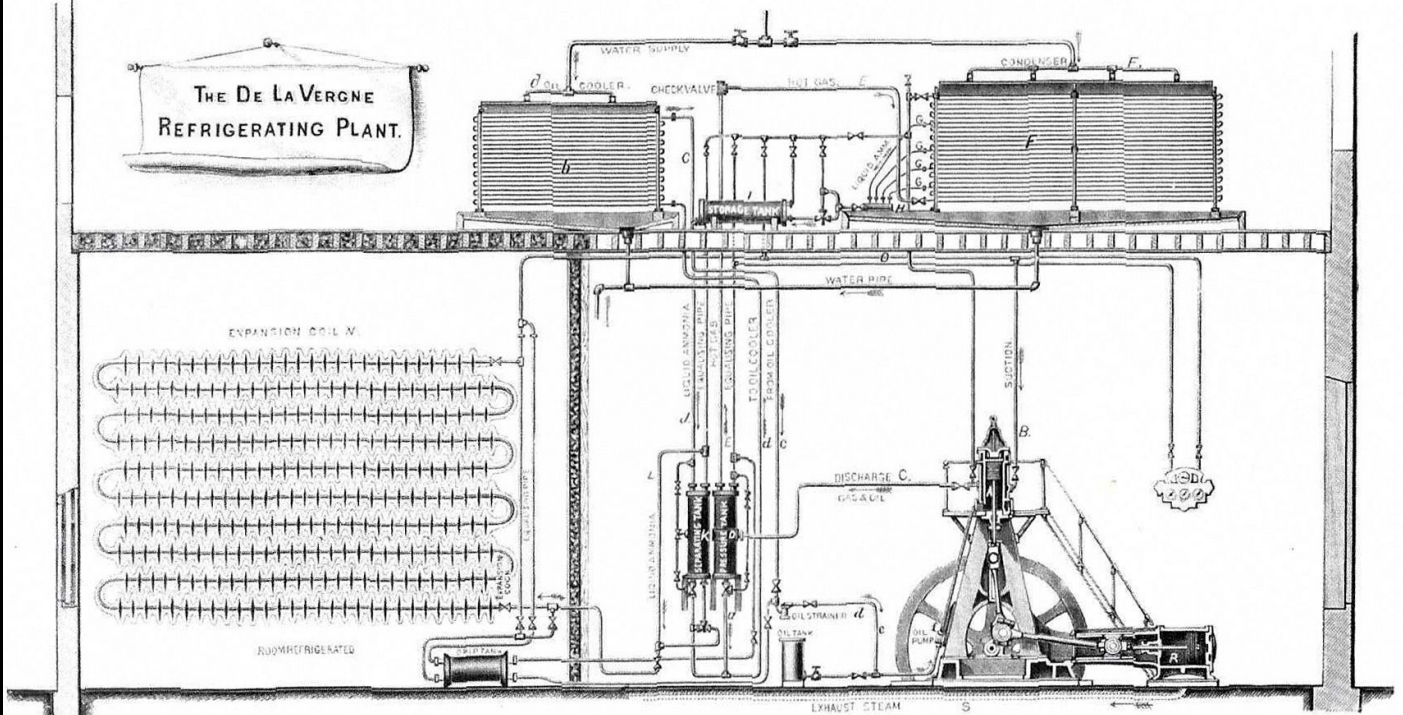


PLATE 10.—Refrigerating Plant—New System.

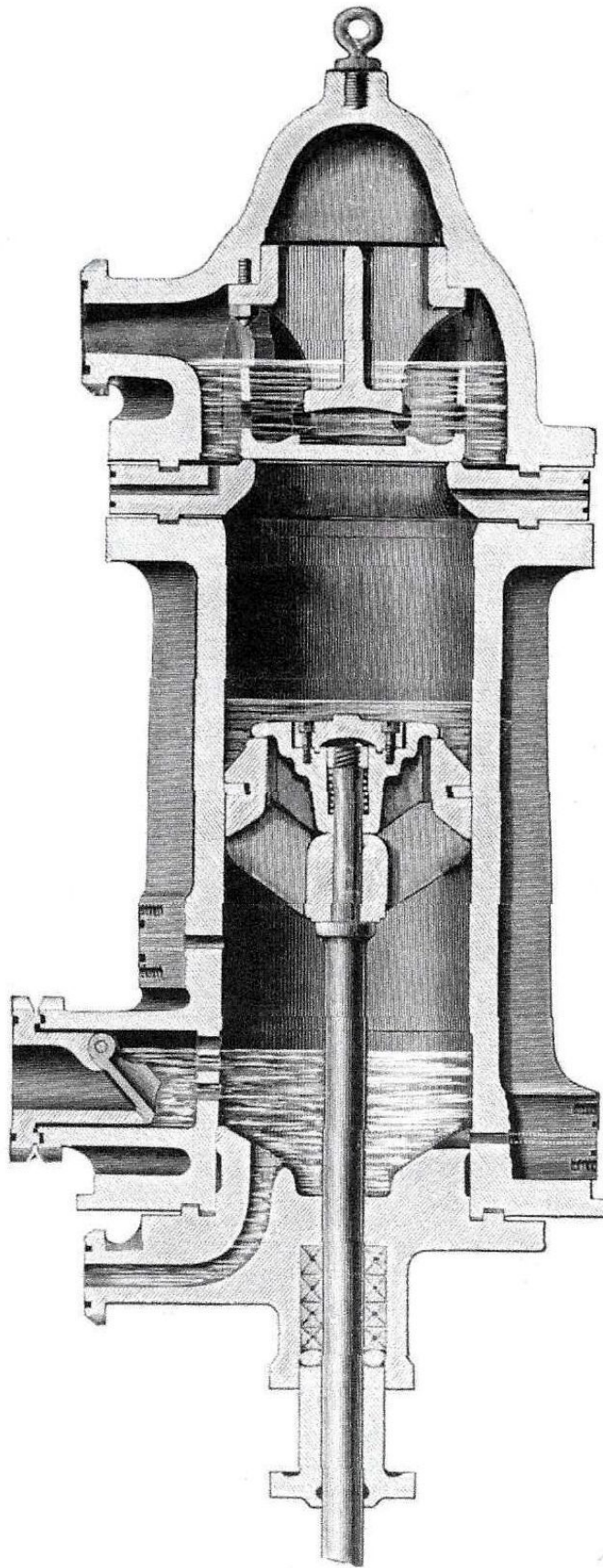


PLATE 4.—Sectional View of Single-Acting Compressor.

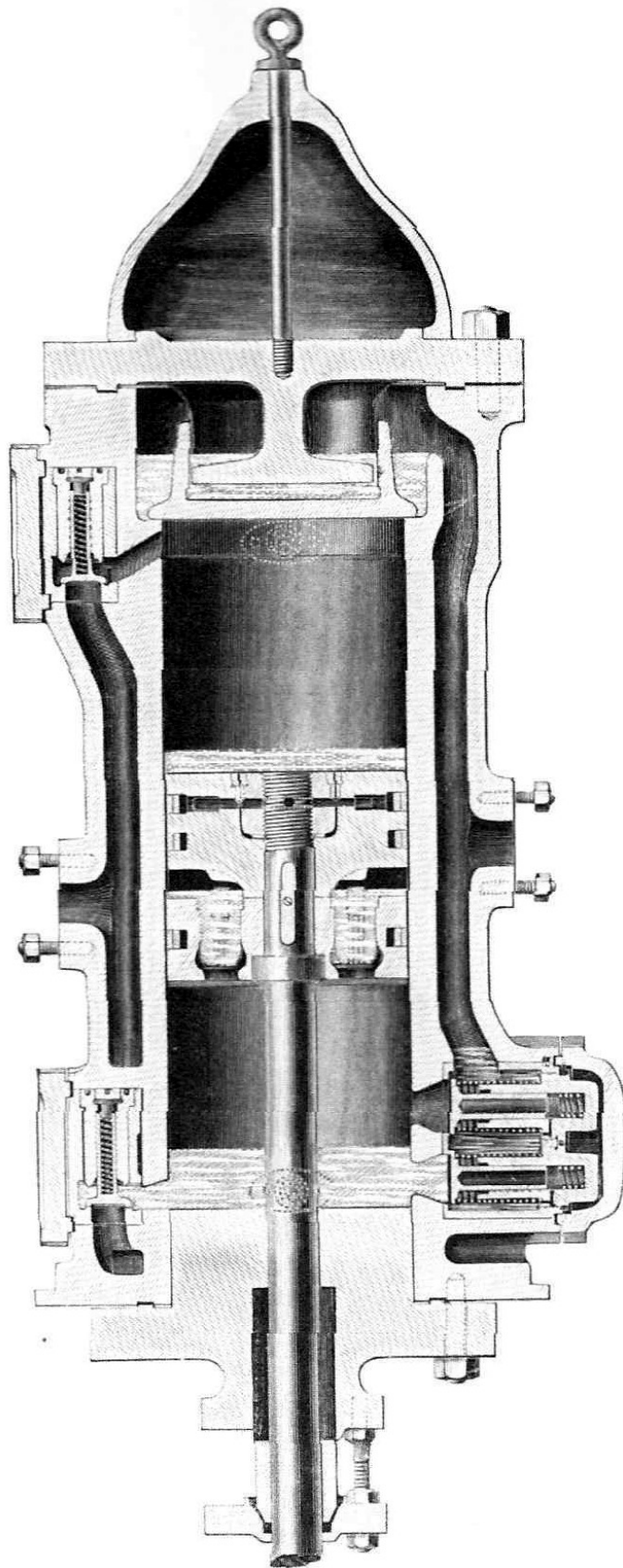


PLATE 5. —Sectional View of Double-Acting Compressor.

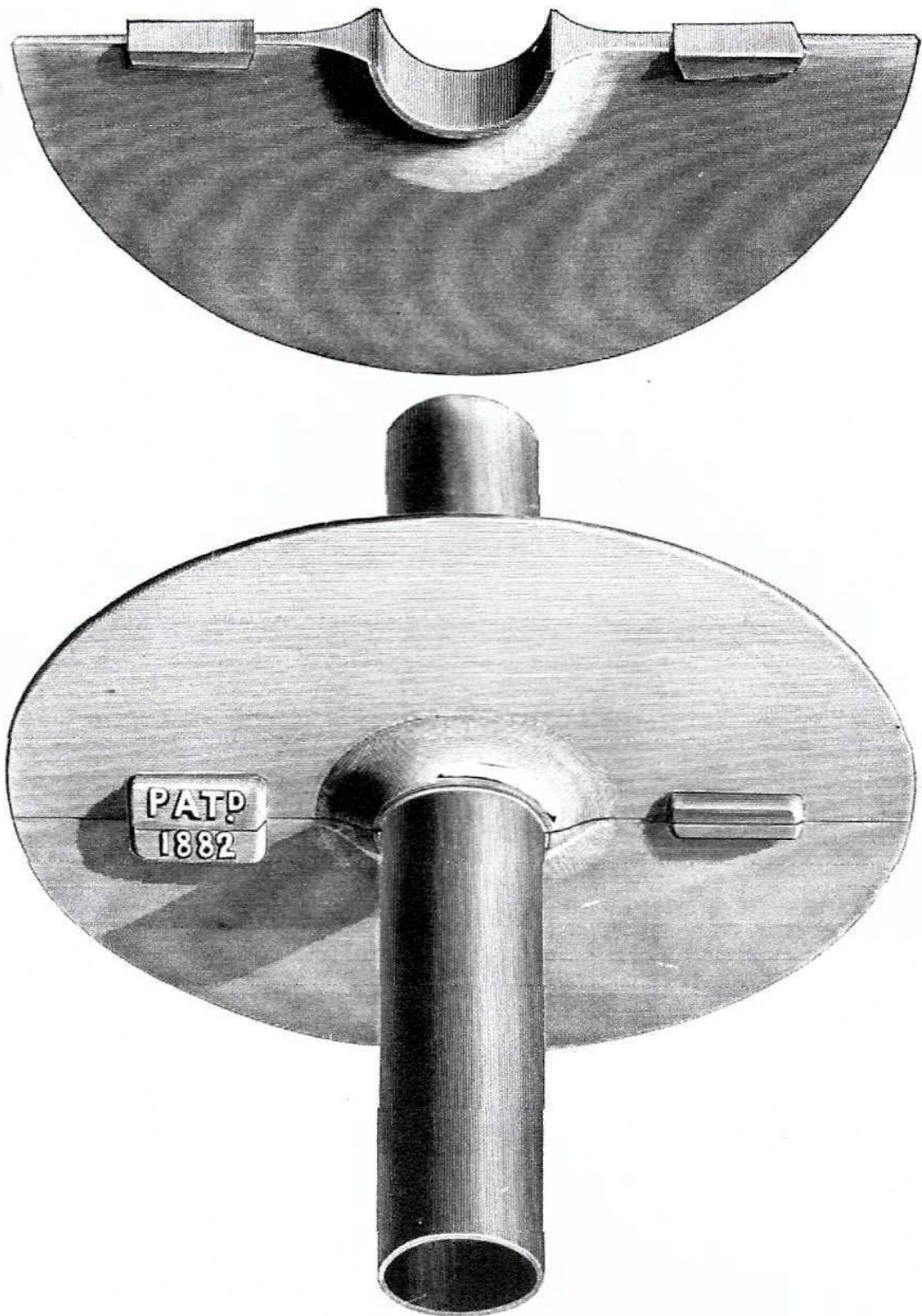


PLATE 12.—Disks for Expansion Coils.

The sizes of machines for which we now have the patterns, and which may be ordered from us at any time, are the following :

MACHINES WITH SINGLE-ACTING COMPRESSORS.

Compressors.	Steam Cylinders.	Horse-power required.	Capacity of Machines in Ice Melted every 24 hours.	Capacity of Machines in Ice Manufactured every 24 hours.
One 6 x 10	One 7 x 10	3 H.-P.	2 Tons.	1 Ton.
Two 6 x 12	" 9 x 12	6 "	4 "	2 Tons.
" 8 x 16	" 12 x 16	13 "	9 "	5 "
" 9 x 16	" 13 x 16	17 "	12 "	7 "
" 10 x 20	" 16 x 20	25 "	18 "	10 "
" 12 x 24	" 18 x 24	47 "	35 "	20 "
" 14 x 28	" 22 x 28	66 "	50 "	30 "
" 16 x 32	" 26 x 32	100 "	75 "	45 "
" 18 x 36	" 32 x 36	140 "	110 "	65 "

MACHINES WITH DOUBLE-ACTING COMPRESSORS.

Compressors.	Steam Cylinders.	Horse-power required.	Capacity of Machines in Ice Melted every 24 hours.	Capacity of Machines in Ice Manufactured every 24 hours.
One 6 x 10	One 9 x 10	6 H.-P.	4 Tons.	2 Tons.
Two 6 x 12	" 12 x 12	12 "	9 "	5 "
" 8 x 16	" 16 x 16	23 "	18 "	10 "
" 9 x 18	" 18 x 18	31 "	25 "	15 "
" 10 x 20	" 20 x 20	42 "	35 "	20 "
" 11 x 22	" 22 x 22	60 "	50 "	30 "
" 12 x 24	" 24 x 24	77 "	65 "	40 "
" 14 x 28	" 28 x 28	119 "	100 "	60 "
" 16 x 32	" 32 x 32	180 "	150 "	90 "
" 18 x 36	" 36 x 36	250 "	220 "	130 "

The above capacities are based on 40 revolutions per minute.

LIST OF CUSTOMERS.

January 1, 1890.

The De La Vergne Refrigerating Machine Co.,

Foot of East 138th Street, NEW YORK CITY.

BREWERIES.

Name.	Address.	Number of Machines.	Total Refrigeration.	Year of Completion.
Jacob Ruppert.....	New York.....	One	110-ton. = 110 tons.	1884
Jacob Ruppert—Second Order....	New York.....	Two	110 " .. 220 "	1885
George Ehret.....	New York.....	One	110 " .. 110 "	1885
George Ehret—Second Order....	New York.....	Two	110 " .. 220 "	1885
William J. Lemp.....	St. Louis, Mo.....	Two	110 " .. 220 "	1888
William J. Lemp—Second Order....	St. Louis, Mo.....	One	110 " .. 110 "	1889
Bernheimer & Schmid.....	New York.....	One	220 " .. 220 "	1888
†Anheuser-Busch Brewing Ass'n....	St. Louis, Mo.....	One	110 " .. 110 "	1886
Anheuser-Busch Brewing Ass'n—				
Second Order.....	Kansas City, Mo....	One	12 " .. 12 "	1886
†Anheuser-Busch Brewing Ass'n—				
Third Order.....	St. Louis, Mo.....	One	110 " .. 110 "	1889
Anheuser-Busch Brewing Ass'n—				
Fourth Order.....	Dallas, Texas.....	One	4 " .. 4 "	1889
(For Fifth and Sixth orders from Anheuser-Busch Brewing Association, see Artificial Ice Plants.)				
Budweiser Brewing Co., Lim'd....	Brooklyn, N. Y.....	One	110 " .. 110 "	1886
*L. Schlather Brewing Co.....	Cleveland, Ohio....	One	110 " .. 110 "	1888
Hinckel Brewing Co.....	Albany, N. Y.....	One	100 " .. 100 "	1889
Joseph Schlitz Brewing Co.—First				
Order.....	Memphis, Tenn....	One	4 " .. 4 "	1886
Joseph Schlitz Brewing Co.—Sec-				
ond Order.....	Milwaukee, Wis....	One	100 " .. 100 "	1890
Eberhardt & Ober Brewing Co....	Pittsburgh, Pa....	One	100 " .. 100 "	1890
†Hyde Park Brewery Co.....	St. Louis, Mo.....	One	75 " .. 75 "	1886
†Pabst Brewing Co.....	Milwaukee, Wis....	One	75 " .. 75 "	1886
*John Wieland Brewing Co.....	San Francisco, Cal..	One	75 " .. 75 "	1889
Falk, Jung & Borchert Brewing Co.	Milwaukee, Wis....	One	75 " .. 75 "	1889
Ballantine & Co.....	Newark, N. J.....	One	64 " .. 64 "	1882
Ballantine & Co.—Second Order..	Newark, N. J.....	One	110 " .. 110 "	1886
Ballantine & Co.—Third Order....	Newark, N. J.....	Two	100 " .. 200 "	1890
†Bergner & Engel Brewing Co.....	Philadelphia, Pa....	One	50 " .. 50 "	1884
†Bergner & Engel Brewing Co.—				
Second Order.....	Philadelphia, Pa....	One	50 " .. 50 "	1885
†Bergner & Engel Brewing Co.—				
Third Order.....	Philadelphia, Pa....	One	110 " .. 110 "	1888
†Bartholomay Brewing Co.....	Rochester, N. Y....	One	50 " .. 50 "	1886
Bartholomay Brewing Co.—Second				
Order.....	Rochester, N. Y....	Two	50 " .. 100 "	1887

Name.	Address.	Number of Machines.	Total Refrigeration.	Year of Completion.
Rochester Brewing Co.....	Rochester, N. Y.....	One	50-ton..= 50 tons..	1888
Rochester Brewing Co.—Second Order	Rochester, N. Y.....	One	100 “ ..	1889
Z. Wainwright Brewing Co.....	Pittsburgh, Pa.	Two	65 “ ..	1890
Macon Brewing Co.....	Macon, Ga.	Two	65 “ ..	1890
S. Liebmann's Sons.....	Brooklyn, N. Y.....	Two	50 “ ..	1883
Wainwright Brewery Co.....	St. Louis, Mo.....	Two	50 “ ..	1884
Rubsam & Horrman.....	Staten Island.....	Two	50 “ ..	1885
Conrad Stein.....	New York.....	Two	50 “ ..	1886
Headleston & Woerz.....	New York.....	Two	50 “ ..	1885
*Jacob Hoffmann Brewing Co.	New York.....	Two	50 “ ..	1887
J. & P. Baltz Brewing Co.....	Philadelphia, Pa....	Two	50 “ ..	1887
Leonhard Eppig.....	Brooklyn, N. Y.....	Two	50 “ ..	1887
Crescent City Brewing Co.....	New Orleans, La... Two	50	“ ..	1888
Louis Bergdoll Brewing Co.....	Philadelphia, Pa....	One	64 “ ..	1882
Louis Bergdoll Brewing Co.—Sec- ond Order.....	Philadelphia, Pa....	Two	50 “ ..	1885
The Bartholomae & Leicht Brewing Co.....	Chicago, Ill.....	Two	50 “ ..	1889
Otto Huber.....	Brooklyn, N. Y.....	Two	35 “ ..	1881
Otto Huber—Second Order.....	Brooklyn, N. Y.....	One	50 “ ..	1885
Gottfried Krueger.....	Newark, N. J.....	Two	35 “ ..	1883
Gottfried Krueger—Second Order.....	Newark, N. J.....	One	50 “ ..	1885
Burr, Son & Co.....	New York.....	Two	35 “ ..	1880
Obermeyer & Liebmann.....	Brooklyn, N. Y.....	Two	35 “ ..	1884
Peter Hauck & Co.....	Newark, N. J.....	Two	35 “ ..	1884
Christian Schmidt.....	Philadelphia, Pa....	Two	35 “ ..	1885
†A. Finck & Son.....	New York.....	Two	35 “ ..	1885
Franz J. Kastner.....	Newark, N. J.....	Two	35 “ ..	1885
Christian Weyand.....	Buffalo, N. Y.....	Two	35 “ ..	1886
C. Trefz.....	Newark, N. J.....	Two	35 “ ..	1886
J. H. Von der Horst & Son.....	Baltimore, Md.....	Two	35 “ ..	1886
Monroe Eckstein.....	Staten Island.....	Two	35 “ ..	1887
M. Groh's Sons.....	New York.....	Two	35 “ ..	1887
Weckerling Brewing Co.....	New Orleans, La. ...	Two	35 “ ..	1888
Pelican Brewing Co.....	New Orleans, La. ...	Two	35 “ ..	1888
Frederick Koehler & Co.....	Erie, Pa.....	Two	35 “ ..	1890
Suffolk Brewing Co.....	Boston, Mass.....	One	65 “ ..	1890
American Brewing Co.....	Chicago, Ill.....	One	65 “ ..	1890
Northwestern Brewing Co.....	Chicago, Ill.....	One	65 “ ..	1890
H. B. Scharmann.....	Brooklyn, N. Y.....	One	50 “ ..	1883
H. B. Scharmann—Second Order.....	Brooklyn, N. Y.....	One	50 “ ..	1888
Claus Lipsius.....	Brooklyn, N. Y.....	One	50 “ ..	1883
Claus Lipsius—Second Order.....	Brooklyn, N. Y.....	One	50 “ ..	1885
William Ulmer.....	Brooklyn, N. Y.....	One	50 “ ..	1886
William Ulmer—Second Order.....	Brooklyn, N. Y.....	One	50 “ ..	1886
H. & J. Paff.....	Boston, Mass.....	One	50 “ ..	1884
H. & J. Paff—Second Order.....	Boston, Mass.....	One	50 “ ..	1885
Henry Muller.....	Philadelphia, Pa....	One	50 “ ..	1884
Henry Muller—Second Order.....	Philadelphia, Pa....	One	50 “ ..	1886
Ph. Zang & Co.....	Denver, Col.....	One	50 “ ..	1886
Ph. Zang & Co—Second Order.....	Denver, Col.....	One	50 “ ..	1887
*Jos. Schnaider's Brewing Co.....	St. Louis, Mo.....	One	50 “ ..	1886
*Jos. Schnaider's Brewing Co.—Sec- ond Order.....	St. Louis, Mo.....	One	50 “ ..	1887
*H. Grone Brewery Co.....	St. Louis, Mo.....	One	50 “ ..	1886
*H. Grone Brewery Co.—Second Order.....	St. Louis, Mo.....	One	50 “ ..	1888

Name.	Address.	Number of Machines.	Total Refrigeration.	Year of Completion.
Jung Brewing Co.	Cincinnati, O.	One	50-ton. = 50 tons	1886
Jung Brewing Co.—Second Order.	Cincinnati, O.	One	50 " "	1886
Christian Heurich.	Washington, D. C.	One	50 " "	1885
John Roessle.	Boston, Mass.	One	50 " "	1885
†H. Clausen & Son Brewing Co.	New York.	One	50 " "	1887
B. Stroh Brewing Co.	Detroit, Mich.	One	50 " "	1887
Fred. Miller Brewing Co.	Milwaukee, Wis.	One	50 " "	1887
Fred. Miller Brewing Co.—Second Order.	Milwaukee, Wis.	One	50 " "	1889
A. Griesedieck Brewing Co.	St. Louis, Mo.	One	50 " "	1888
*Haffenreffer & Co.	Boston, Mass.	One	50 " "	1888
Valentine Loewer.	New York.	One	50 " "	1883
Ziegele Brewing Co.	Buffalo, N. Y.	One	50 " "	1888
National Brewing Co.	San Francisco, Cal.	One	50 " "	1889
Jacob Ahles Brewing Co.	New York.	One	50 " "	1889
Buffalo Brewing Co.	Sacramento, Cal.	One	50 " "	1889
(For second order from Buffalo Brewing Co., see Artificial Ice Plants.)				
William Peter.	Union Hill, N. J.	One	50 " "	1890
D. M. Lyon & Sons	Newark, N. J.	One	50 " "	1890
United States Brewing Co.	San Francisco, Cal.	One	50 " "	1890
Peter Buckel.	New York.	One	35 " "	1889
George Zett.	Syracuse, N. Y.	One	35 " "	1889
Hubert Fischer	Hartford, Conn.	One	35 " "	1889
Grasser & Brand Brewing Co.	Toledo, O.	One	35 " "	1889
Ferd. Munch.	Brooklyn, N. Y.	One	35 " "	1882
Ferd. Munch—Second Order.	Brooklyn, N. Y.	One	35 " "	1884
Continental Brewing Co.	Philadelphia, Pa.	One	35 " "	1883
Continental Brewing Co.—Second Order.	Philadelphia, Pa.	One	35 " "	1884
C. Feigenspan.	Newark, N. J.	One	35 " "	1884
C. Feigenspan—Second Order.	Newark, N. J.	One	35 " "	1886
Wm. Hill.	Newark, N. J.	One	35 " "	1884
Wm. Hill—Second Order	Newark, N. J.	One	35 " "	1886
Chas. A. King.	Boston, Mass.	One	35 " "	1884
J. Chr. G. Hupfel Brewing Co.	New York.	One	35 " "	1886
J. Chr. G. Hupfel Brewing Co.— Second Order.	New York.	One	35 " "	1887
Ernst Bros. Brewing Co.	Chicago, Ill.	One	35 " "	1886
Ernst Bros. Brewing Co.—Second Order.	Chicago, Ill.	One	35 " "	1887
*A. Hupfel's Son.	New York.	One	35 " "	1886
*A. Hupfel's Son—Second Order.	New York.	One	35 " "	1886
George Guenther.	Baltimore, Md.	One	35 " "	1886
Germania Brewing Co.	Syracuse, N. Y.	One	35 " "	1886
W. G. Abbott Brewing Co.	Brooklyn, N. Y.	One	35 " "	1887
N. Molter's Sons.	Providence R. I.	One	35 " "	1887
†J. L. & W. L. Straus.	Baltimore, Md.	One	35 " "	1887
J. L. & W. L. Straus—Second Or- der.	Baltimore, Md.	One	65 " "	1890
Joseph Stoeckle.	Wilmington, Del.	One	35 " "	1888
Welde & Thomas.	Philadelphia, Pa.	One	35 " "	1888
San Antonio Brewing Co.	San Antonio, Tex.	One	35 " "	1888
Jos. Fallert Brewing Co.	Brooklyn, N. Y.	One	35 " "	1888
Jos. Fallert Brewing Co.—Second Order.	Brooklyn, N. Y.	One	35 " "	1889
Katz Bros.	Paterson, N. J.	One	35 " "	1888
M. Winter & Bros.	Pittsburgh, Pa.	One	35 " "	1889
Burg & Pfaender.	Philadelphia, Pa.	One	35 " "	1889

Name.	Address.	Number of Machines.	Total Refrigeration.	Year of Completion.
Miller Brewing Co.....	Rochester, N. Y.....	One	35-ton. = 35 tons.	1887
Miller Brewing Co.—Second Order.	Rochester, N. Y.....	One	18 " .. 18 "	1888
Leibinger & Oehm.....	Newtown, N. Y.....	One	35 " .. 35 "	1889
John Schuesler Brewing Co.....	Buffalo, N. Y.....	One	35 " .. 35 "	1889
Schaefer & Meyer Brewing Co.....	Louisville, Ky.....	One	35 " .. 35 "	1889
Hellmann & Kipp.....	Waterbury, Conn.....	One	35 " .. 35 "	1889
Cincinnati Brewing Co.....	Hamilton, O.....	One	35 " .. 35 "	1889
Cincinnati Brewing Co. — Second Order.....	Hamilton, O.....	One	65 " .. 65 "	1890
*Oppmann Brewing Co.....	Cleveland, O.....	One	35 " .. 35 "	1889
Schmidt & Bro.....	Cincinnati, O.....	One	35 " .. 35 "	1889
Union Brewing Co.....	Rochester, N. Y.....	One	35 " .. 35 "	1890
Claussen-Sweeney Brewing Co.....	Seattle, W. T.....	One	35 " .. 35 "	1890
Kalmbach & Geisel.....	Springfield, Mass.....	One	18 " .. 18 "	1887
William Smith & Co.....	Boston, Mass.....	One	18 " .. 18 "	1887
Liebert & Obert.....	Manayunk, Pa.....	One	18 " .. 18 "	1888
Ph. Schneider Brewing Co.....	Trinidad, Col.....	One	18 " .. 18 "	1888
Joseph Weibel.....	New Haven, Conn.....	One	18 " .. 18 "	1888
Joseph Kohnle.....	Philadelphia, Pa.....	One	12 " .. 12 "	1887
Willibald Kuebler.....	Easton, Pa.....	One	12 " .. 12 "	1887
*Guayaquil Lager Beer Brewery Ass'n.....	Guayaquil, Ecuad.....	One	12 " .. 12 "	1887
Loebs Bros.....	Rochester, N. Y.....	One	12 " .. 12 "	1888
Loebs Bros. (American Brewing Co.)—Second Order.....	Rochester, N. Y.....	One	65 " .. 65 "	1890
H. Weidemann Brewing Co.....	New Haven, Conn.....	One	12 " .. 12 "	1889
Theo. R. Helb.....	York, Pa.....	One	9 " .. 9 "	1885
Eckart Bros.....	Bridgeport, Conn.....	One	9 " .. 9 "	1885
Eckart Bros.—Second Order.....	Bridgeport, Conn.....	One	9 " .. 9 "	1886
Herrall & Zimmerman.....	Portland, Ore.....	One	9 " .. 9 "	1885
G. Mander.....	Elmira, N. Y.....	One	9 " .. 9 "	1889
Theo. Finkenauer.....	Philadelphia, Pa.....	One	9 " .. 9 "	1887
Theo. Finkenauer—Second Order.....	Philadelphia, Pa.....	One	18 " .. 18 "	1889

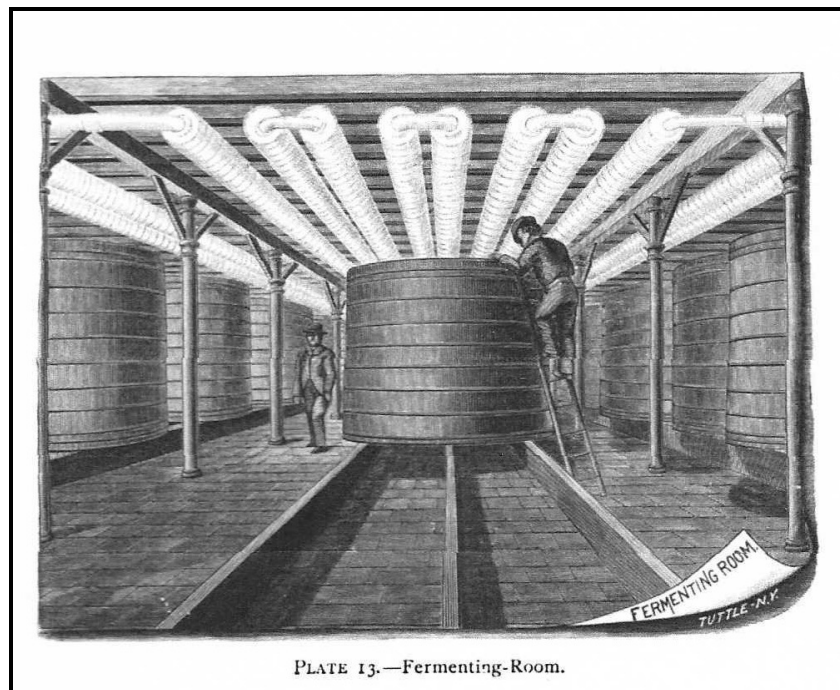


PLATE 13.—Fermenting-Room.

SUPPLEMENT.

MACHINES SOLD FROM JAN. 1 TO APRIL 1, 1890.

BREWERIES.

Name.	Address.	Number of Machines.	Total Refrigeration.	Year of Completion.
The Christian Moerlein Brewing Co.	Cincinnati, O.	One	100-ton. = 100 tons.	1890
St. Louis Brewing Ass'n, Cherokee Brewery Branch	St. Louis, Mo.	One	65 "	1890
Fred. Hower	Brooklyn, N. Y.	Two	35 "	1890
Christian Moerlein and Wm. Gerst.	Nashville, Tenn.	One	65 "	1890
Hinchliffe Bros.	Paterson, N. J.	One	50 "	1890
George Brehm	Baltimore, Md.	One	50 "	1890
Herman Straub & Co.	Pittsburgh, Pa.	One	50 "	1890
The Grasser & Brand Brewing Co.—Second Order	Toledo, O.	One	35 "	1890
M. Winter Bros. (second order)	Pittsburgh, Pa.	One	65 "	1890
Oppman Brewing Co.—Second Order	Cleveland, O.	One	65 "	1890
Edward Habich Norfolk Brewery	Boston, Mass.	One	35 "	1890
George V. Muth	Cleveland, O.	One	35 "	1890
Indianapolis Brewing Co., P. Lieber Branch	Indianapolis, Ind.	One	35 "	1890
George Hauck	Rondout, N. Y.	One	18 "	1890
Selig Manilla	Springfield, Mass.	One	18 "	1890

ABATTOIRS AND PACKING HOUSES.

T. M. Sinclair & Co.	Cedar Rapids, Ia.	Two	100-ton. = 200 tons.	1890
Joseph Stern	New York	One	65 "	1890
Wm. H. Davis	Cincinnati, O.	One	35 "	1890
Jeremiah Murphy	St. Louis, Mo.	One	35 "	1890
Murray & Bro.	Rockaway B'ch, N. Y.	One	2 "	1890

COLD STORAGE.

Otto Huber Brewery—Third Order	Far Rockaway, N. Y.	One	2-ton. = 2 tons.	1890
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HOTELS AND RESTAURANTS.

Iroquois Hotel	Buffalo, N. Y.	One	9-ton. = 9 tons.	1890
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CONFECTIONERS AND CHOCOLATE MANUFACTURERS.

Fobes, Hayward & Co.	Boston, Mass.	One	9-ton. = 9 tons.	1890
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ARTIFICIAL ICE-PLANTS.

		Ice-Plant.	Total Ice-Making.	Year of Completion.
William J. Lemp.—Third Order	St. Louis, Mo.	One	120 tons.	1890
Corryville Artificial Ice Co.	Cincinnati, O.	One	100-ton 60 "	1890
A. Griesedieck Artificial Ice Co.—Second Order	St. Louis, Mo.	One	100 " 60 "	1890
Gottfried Krueger—Third Order	Newark, N. J.	Two	100 " 120 "	1890
New York Hygeia Ice Co. (Limited.)	New York	Two	100 " 120 "	1890
New York Steam Co.	New York	One	100 " 60 "	1890
Otto Huber—Fourth Order	Brooklyn, N. Y.	One	65 " 30 "	1890
Montgomery Brewing Co.	Montgomery, Ala.	One	50 " 30 "	1890
John R. Tendick	San Antonio, Tex.	One	35 " 20 "	1890
St. Louis Brewing Ass'n, Klausman Brewery Branch—Second Order	St. Louis, Mo.	One	Ice-Plant.. 20 "	1890
St. Louis Brewing Ass'n, Schneider Brewery Branch—Third Order	St. Louis, Mo.	One	Ice-Plant.. 30 "	1890
P. Ballantine & Sons—Fourth Order	Newark, N. J.	One	Ice-Plant.. 18 "	1890
Wm. Ottman	New York	One	Ice-Plant.. 2 "	1890
Western Brewery Co.	Bellefonte, Ill.	One	Ice-Plant.. 20 "	1890