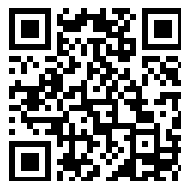

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TIPPETT & WOOD

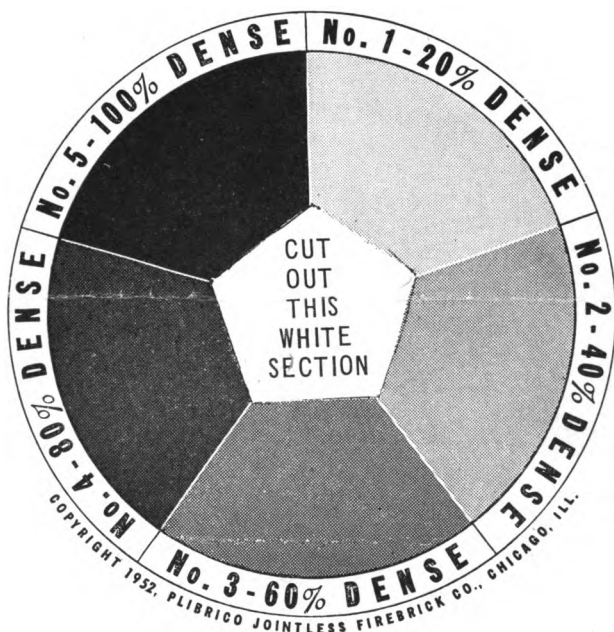


WATER TOWERS
STAND PIPES
GENERAL PLATE
CONSTRUCTION

PHILLIPSBURG, N.J.

PLIBRICO SMOKE CHART

RINGELMANN TYPE



INSTRUCTIONS

This miniature Ringelmann smoke scale will enable the observer to conveniently grade the density of smoke issuing from the stack.

The scale should be held at arm's length at which distance the dots in the scale will blend into uniform shades.

Then compare the smoke (as seen through the hole) with the chart, determining the shade in the chart most nearly corresponding to the shade or density of the smoke. Experienced observers often record in half chart numbers. By recording the changes in smoke density, the average "percentage of smoke density" for any period of time can be determined.

Observer's line of observation should be at right angles to the direction of smoke travel.

Observer should not be less than 100 ft. nor more than $\frac{1}{4}$ mile from the stack.

Observer should avoid looking towards bright sunlight. The background immediately beyond the top of the stack should be free of buildings or other dark objects.

TIPPETT & WOOD

ORGANIZED 1865

INCORPORATED 1891

DESIGNERS

TD489 MANUFACTURERS

, T566

1916

c.l

Sci'

ERECTORS

OF ALL CLASSES OF

STEEL PLATE WORK

MAKING A SPECIALTY OF

STAND PIPES

AND

WATER TOWERS

OFFICERS

S. TAYLOR WILSON	-	-	PRESIDENT
J. WHIT WOOD	-	-	VICE PRES. & TREAS.
F. RAYMOND WOOD	-	-	SECRETARY
WM. A. BRUNNER	-	-	SUPERINTENDENT

MAIN OFFICE AND FACTORY

PHILLIPSBURG, N. J.

NEW YORK OFFICE, 135 WILLIAM ST.

SEE NEXT PAGE FOR LIST OF OUR PRODUCTS

1916

T I P P E T T & W O O D

Products of Tippet & Wood

We are prepared to offer any of the following products to a customer and give him the benefit of fifty years of experience in this class of work, together with the assurance that the work will be done correctly, will not leave our plant until thoroughly inspected and its superior workmanship attested to by competent assistants.

Accessories for Water Towers and
Stand-Pipes

Accumulators

Acid Tanks

Agitators

Air Receivers

Bins

Blast Furnaces

Boilers

Bosh Jackets

Breechings for Stacks

Buckets

Cable Towers

Car Tanks

Casings

Caissons

Clarifiers

Conveyor-Casings

Creosoting Tanks

Cyanide Tanks

Cylinders

Desiccators

Drums

Dryers

Elevated Tanks above Buildings

Filter Tanks

Flumes

Fuel Oil Tanks

Furnace Work

Galvanizing Tanks

Gas Holders

Heads, all sizes

Heaters

Hearth Jackets

Heavy Flange Work

Hoppers

Hydraulic Mains

Jacketed Tanks and Kettles

Ladles

Oil Tanks, Crude and Refined
Products

Penstocks

Plate Work

Poles

Pressure Tanks

Railway Coaling Stations

Railway Water Stations

Rectangular Tanks

Riveted Pipe

Smoke Stacks

Stand-Pipes

Standard Water Towers

Still

Storage Tanks

Structural Supports for Wood or
Steel Tanks

Tanks of Steel for any purpose

Tanks for water softening

Trestles

Troughs

Turntables

Water Jackets

Water Towers to meet requirements
of Fire Insurance Associations

Water Towers with Conical Bottom
Tanks

Water Towers with Elliptical Bot-
tom Tanks

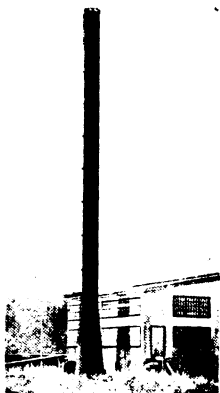
Water Towers with Flat Bottom
Tanks

Water Towers with Hemispherical
Bottom Tanks

Vulcanizers

SUPERIOR TANKS

Steel Plate Work



FOR the past fifty years we have been fabricating iron and steel plates into almost any conceivable form in commercial use. We have installed the heaviest hydraulic machinery for forming and riveting this class of work. Our plant has grown with our trade and is today equipped with the most modern electric, pneumatic and hydraulic machinery obtainable, some of which has been especially designed to meet our demand for superior workmanship.

The art of forming plates into a definite shape given on a detailed drawing, in such a way that no weakness can develop in any part of the product and so that the whole will have the full strength expected by the designer, required the constant attention and direction of our Superintendent's Department. Our long experience in this class of work and the command of a force of trained men, each an expert on some operation in the course of its fabrication, is in itself a valuable assurance that each product will be of unusual merit. We do not bevel shear the straight calking edges on water-tight work. We are the only plate manufacturing concern in the United States making a specialty of tank and tower work which, at the present time, possesses a planer capable of beveling tank plates full length, and we plane all straight caulking seams. We have found this to be the only certain way to insure tight work. The planer does not distort the plate like a shear does. Planed plates lay up smoothly and tightly. The edge is not rough but smooth and straight. Come and see them for yourself. You will never want any other.

It pays to do work right. If we do your work it will save you worry, maintenance expense and will certainly last longer. We invite you to inspect your order during its fabrication. It will not leave our plant until its correctness has been verified.

T I P P E T T & W O O D



WATER TOWER FOR PRINCETON WATER CO.

**Diam. Tank 20 Ft., Height Cylinder 60 Ft., Height of Tower 60 Ft.
Capacity 141,000 Gals.**

Erected at Princeton, N. J., in 1883

This tower has been torn down and the tank re-erected for James E. Hulfish, at Lawrenceville, N. J. The material was found in excellent condition after 31 years of continuous service

SUPERIOR TANKS

T I P P E T T & W O O D



WATER TOWER FOR PRINCETON WATER CO.

**Diam. Tank 45 Ft., Height of Cylinder 30 Ft., Height of Tower 89'-6" to
Balcony**

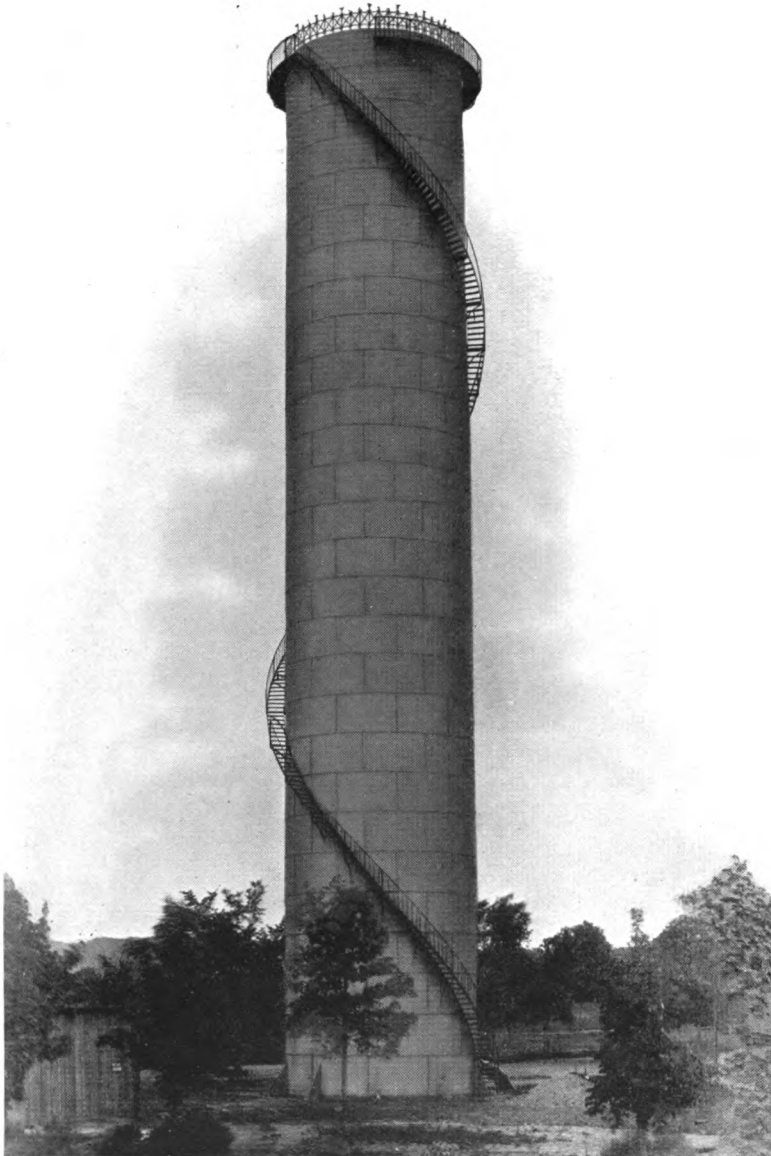
Capacity 537,000 Gals.

Erected at Princeton, N. J., in 1914

This tower replaces the one on the opposite page also built by us

SUPERIOR TANKS

T I P P E T T & W O O D



STAND-PIPE FOR PLAINFIELD WATER SUPPLY CO.

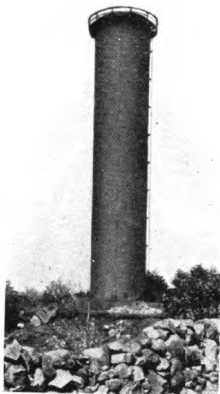
Diam. 25 Ft., Height 140 Ft., Capacity 514,000 Gals.

Erected at Plainfield, N. J. in 1890

Have you ever seen tank plates planed full length with a uniform beveled edge? We furnish them without extra charge. Specify them.

SUPERIOR TANKS

Steel Tanks

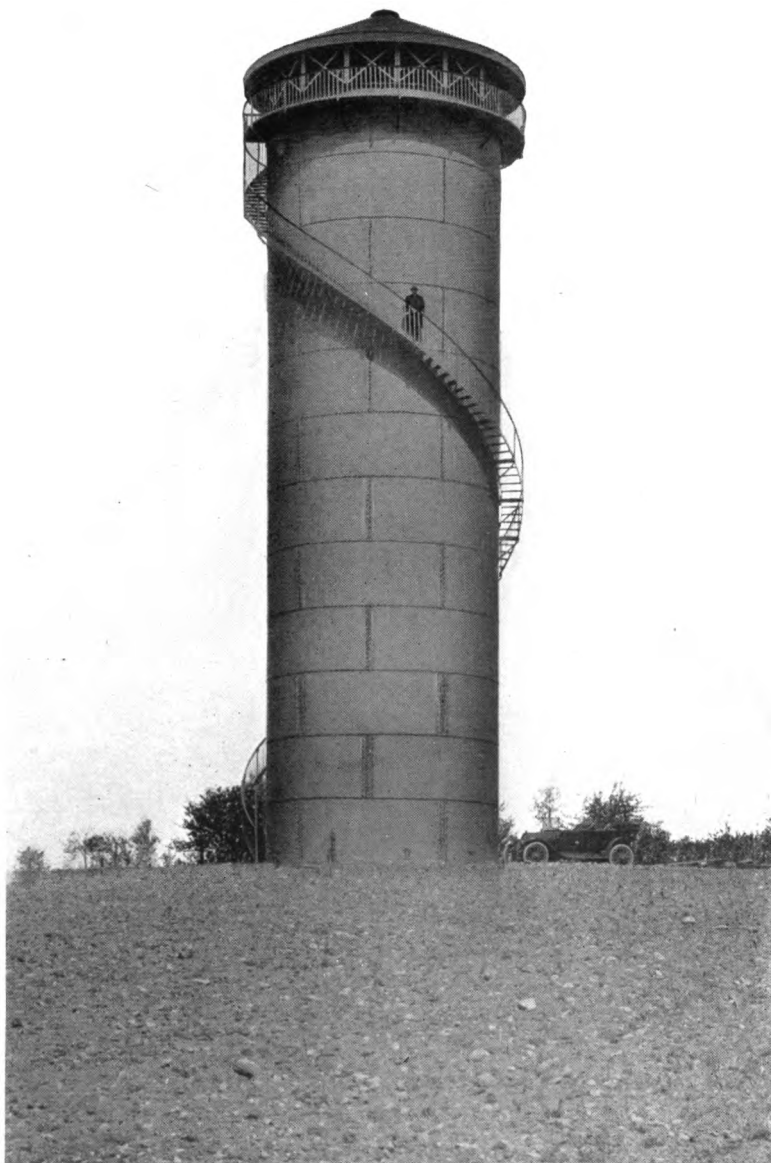


WE build steel tanks of all practical dimensions and for any purpose. We have made them of various shapes—rectangular, round, elliptical, spherical, etc., and can advise you what will best suit your requirements for the liquid or other material stored and the space available.

A steel tank is economical for the storage of anything in commercial use. Steel tanks are used to store acids, coal tar, crude and refined oils, linseed oil and paints, lime, coal, sand, molasses, beet sugar syrup, cyanide, galvanizing material, ammonia, creosote, turpentine, etc. We also build them for water or air pressure or for vacuums. A steel tank is by far superior to a wood tank. It is as permanent as a modern steel frame building and on account of being tight after once tested, requires no repairs except an occasional coat of paint. This cannot be said of wood tanks. Wood tanks may cost less to install but their life is comparatively short. They very often leak and cause trouble a short time after their installation and also on account of frequent failures are used in smaller numbers every year.

Steel tanks built by us have an actual factor of safety of from 4 to 10. This assures a long life proven by the fact that there are some in service today in excellent condition built between forty and fifty years ago. Each tank is designed for the special service it is intended for. Inform us of your requirements and the tank we build for you will be one that will best serve you. It will have the proper factor of safety and be riveted and caulked in a manner to give the greatest satisfaction. This we pride as the result of our many years of experience and it saves time and money for all concerned to know that a tank is tight and safe after completion.

T I P P E T T & W O O D



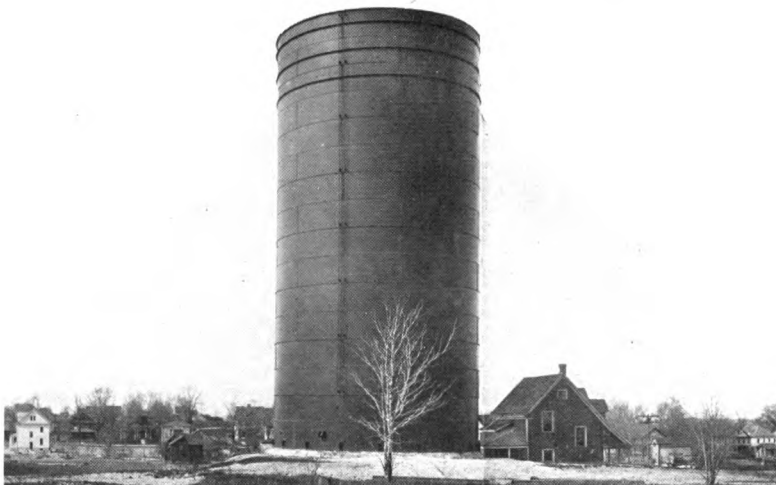
STAND-PIPE FOR CONNECTICUT AGRICULTURAL COLLEGE

Diam. 25 Ft., Height 80 Ft., Capacity 183,000 Gallons

Erected at Storrs, Conn., in 1914

SUPERIOR TANKS

T I P P E T T & W O O D



STAND-PIPE FOR THE SYRACUSE SUBURBAN WATER CO.

Diam. 40 Ft., Height 80 Ft., Capacity 752,000 Gallons

Erected at Syracuse, N. Y., in 1914

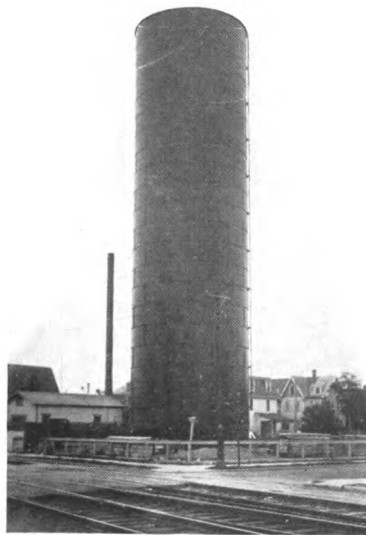


WATER TOWER FOR J. L. MOTT

Trenton, N. J.

**Capacity 75,000 Gals., 60 Ft. to
Tank Bottom**

Erected at Trenton, N. J., in 1913



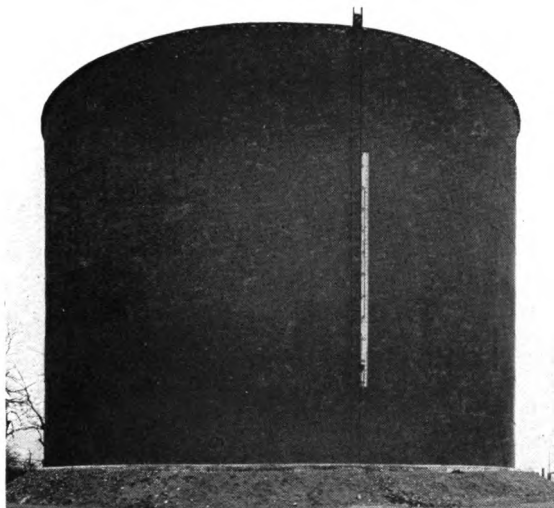
**STAND-PIPE FOR WILDWOOD
WATER CO.**

**Diam. 30 Ft., Height 110 Ft.
Capacity 581,000 Gallons**

Erected at Wildwood, N. J., in 1906

SUPERIOR TANKS

T I P P E T T & W O O D



TANK FOR BOROUGH OF BETHLEHEM
Diam. 70 Ft., Height 50 Ft., Capacity 1,440,000 Gals.
Erected at Bethlehem, Pa. in 1914



**WATER TOWERS FOR THE ATLAS
PORTLAND CEMENT CO.**
**Capacity 100,000 Gals., Height 100 Ft. to
Bottom of Tank**
**Capacity 40,000 Gals., Height 58 Ft. to
Bottom of Tank**
Erected at Northampton, Pa. in 1907

A steel tank or water tower properly designed and built is a permanent structure. Its cost of maintenance is simply the cost of an occasional coat of paint. Concrete has been proven to be too porous to be a satisfactory material. Wood can be utilized on small construction only, and is comparatively short-lived.

Submit your problem to an expert and he will probably cause a substantial saving and you will be assured of the best results.

SUPERIOR TANKS

Stand-Pipe or Water Tower



EVERY pumping installation should have a stand-pipe or a water tower. The high cost of pumping water directly into the mains has made the use of one of these a necessity. An elevated reservoir furthermore is desirable for storing an efficient amount of water for fire protection and insures a uniform head on the mains always above the minimum.

Having decided upon a minimum head for the system, the topographical condition in the immediate vicinity of the water works and the locality to be supplied with water, will indicate the economy of the use of either the water tower or stand-pipe. Nature has provided a tower in the form of an elevated projection of land within the economic reach of most municipalities. Where elevated land is available near the water works or within the municipality the advantage of the steel reservoir or stand-pipe is at once apparent. On the other hand if the water system is in an absolutely flat country and the water below the minimum desired head cannot be used advantageously, the water tower should be specified.

The water tower can be erected at most any location and at any elevation. The higher the elevation required to store a definite quantity of water, the cheaper the water tower is in comparison with a stand-pipe erected on the same site. For high elevations the cost of a stand-pipe may be several times that of a water tower. On the other hand where a stand-pipe can be used to advantage, several times as much water can be stored in it as could be carried by a water tower at the same cost.

We have a competent staff of engineers experienced in this line of work, who are at all times at your service and who can give you valuable suggestions without placing you under any obligations to us.

T I P P E T T & W O O D



**WATER TOWER FOR WYOMING
VALLEY LACE MILLS**

**Capacity 40,000 Gals., Height 85
Ft. to Bottom of Tank**

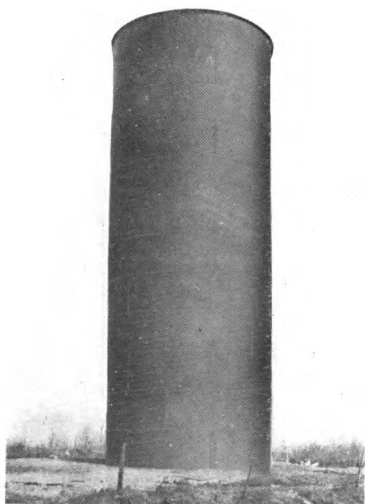
Erected at Wilkesbarre, Pa., in 1911



**WATER TOWER FOR HEMMING
MFG. CO.**

**Capacity 10,000 Gals., Height 26 Ft.
to Bottom of Tank**

Erected at Garfield, N. J., in 1910



**STAND-PIPE FOR GUILFORD
CHESTER WATER CO.**

**Diam. 32 Ft., Height 85 Ft.
Capacity 511,000 Gals.**

Erected at Guilford, Conn., in 1914



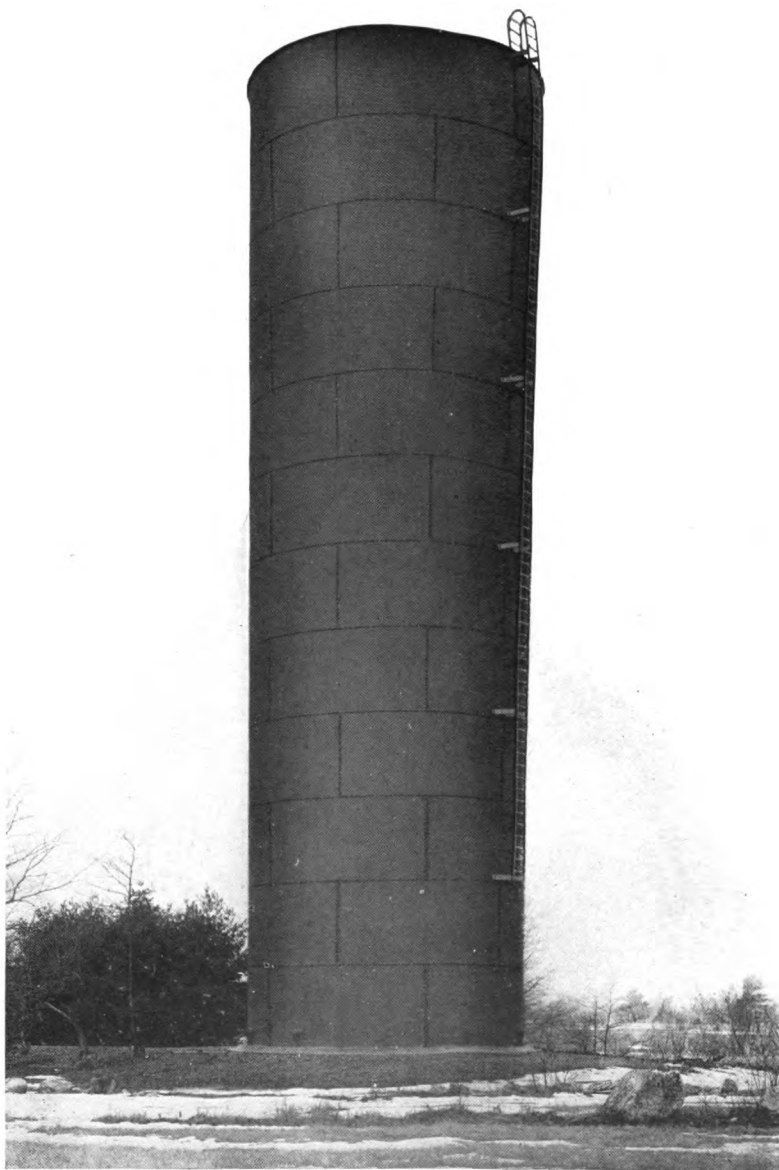
**WATER TOWER FOR
MUNICIPAL WATER WORKS**

**Capacity 30,000 Gals., Height 75
Ft. to Bottom of Tank**

Erected at Walterboro, S. C.

SUPERIOR TANKS

T I P P E T T & W O O D



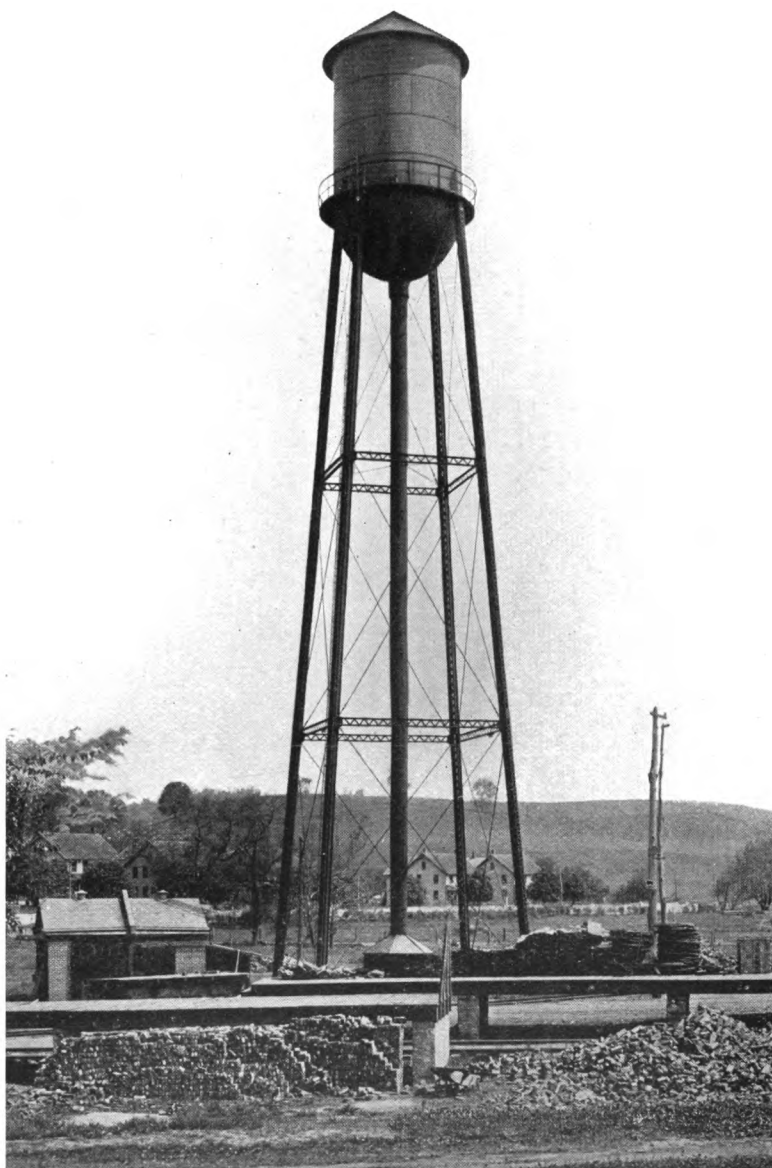
STAND-PIPE FOR TOWN OF HAMPTON

Diam. 25 Ft., Height 85 Ft., Capacity 322,000 Gals.

Erected at Hampton, N. H., in 1914

SUPERIOR TANKS

T I P P E T T & W O O D



WATER TOWER FOR THE AMERICAN SNUFF CO.

Capacity 50,000 Gals., Height 100 Ft. to Bottom of Tank

Erected at Yorklyn, Del. in 1910

SUPERIOR TANKS

Towers



THE two standard designs of tanks and towers which we build are given on pages 18 and 19. There are several hundred of our towers throughout the U. S. but we have never had a failure nor has it ever been necessary to repair any of them. There are several instances, however, where towers and stand-pipes we built have been replaced by us with some of larger capacity and our product was given a preference over any other. This is the best proof of the satisfaction obtained in having one of our installations.

If you order one of our standard towers you are absolutely sure that it is safe. No tower built by us has a factor of safety of less than four during a severe wind storm. The fact that several hundred are in use now and some have been in use for many years, is much more important and reliable than any theoretical analysis of something that might be just as good. We have not only carefully designed these towers but have put them to the most severe tests.

The capacity of these towers is always slightly in excess of the nominal. We are building them continually from the same templets. Every mechanic, in the process of the fabrication, knows just what to expect next and how it must be done. The result is that these towers are made correctly and with the greatest economy. All work is inspected before leaving our plant to insure its correctness and completeness. We desire that you see some of our installations, either stand-pipes or water towers, and will at any time upon request give you a list with addresses of those nearest your location.

We build and erect towers to suit any plans. There are many of our installations on the tops of buildings. We furnish towers to support wood tanks and have installed many for sprinkler service with either wood or steel tanks.

We offer information on tower and stand-pipe design for your particular requirements. If you are limited in room we can inform you how one of our standard towers can be used which will afford an appreciable saving over the cost of a special design.

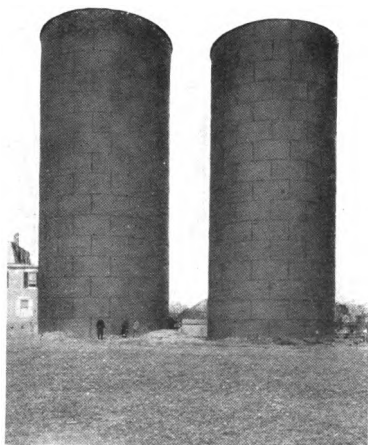
T I P P E T T & W O O D



TANK FOR OVERBROOK ASYLUM

Diam. 60 Ft., Height 30 Ft., Capacity 634,000 Gals.

Erected at Overbrook, N. J., in 1908



**STAND-PIPES FOR
SPRINGFIELD WATER CO.**

Diam. 35 Ft., Height 80 Ft.

Capacity 575,000 Gals.

**Erected at Chestnut Hill, Philadel-
phia, Pa., in 1899**



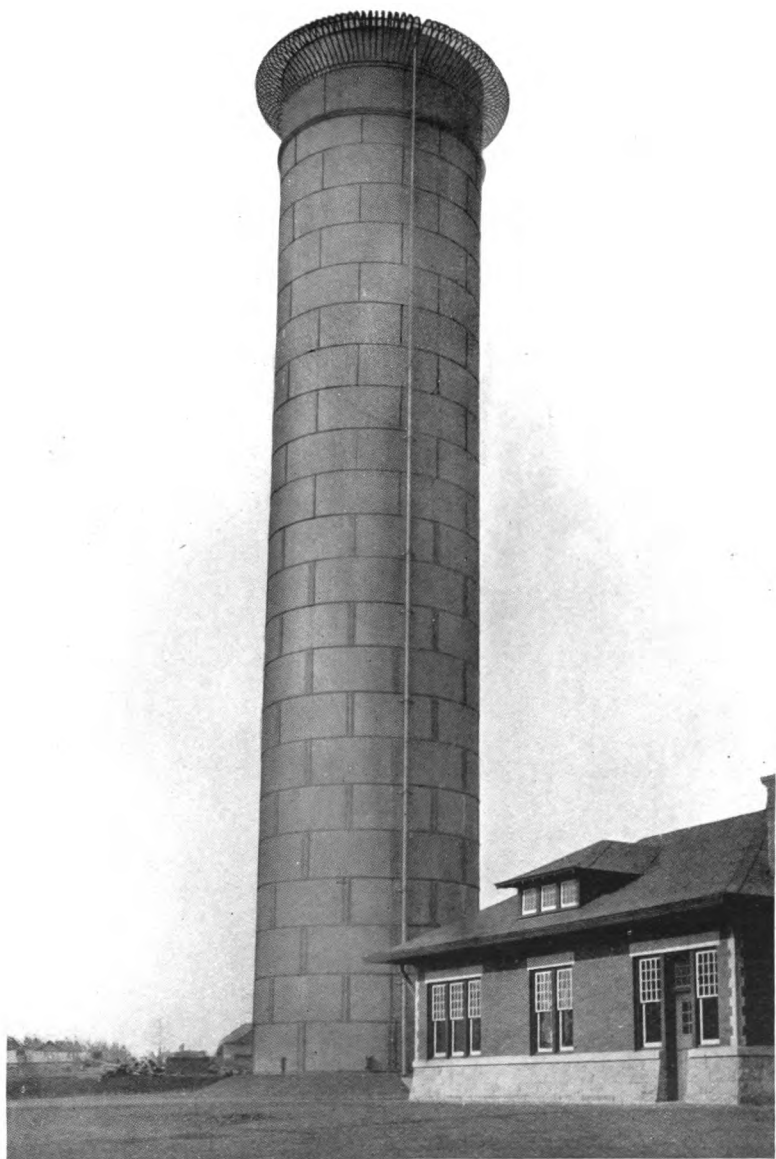
**WATER TOWER FOR THE
TOWN OF HAMLET**

**Capacity 150,000 Gals., Height 75
Ft. to Bottom of Tank**

Erected at Hamlet, N. C., in 1908

SUPERIOR TANKS

T I P P E T T & W O O D



STAND-PIPE FOR LEHIGH WATER CO.

Diam. 25 Ft., Height 120 Ft., Capacity 440,000 Gals.

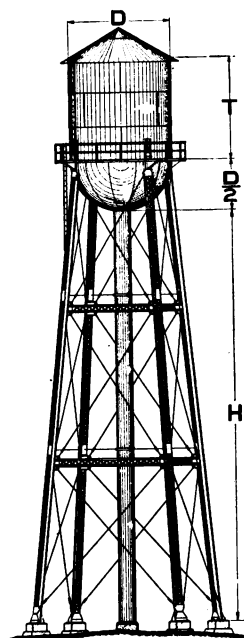
Erected at Easton, Pa., in 1903

SUPERIOR TANKS

T I P P E T T & W O O D

Standard Water Towers

Dimensions of Tanks



Capacity in U. S. Gallons	Diameter "D" in Feet	Height "T" Feet and inches	Width Balcony in inches
7500	10	9-9	18
10000	11	10-8	"
15000	12	14-0	"
20000	14	13-0	"
25000	14	17-3	"
30000	16	14-11	24
35000	16	18-3	"
40000	18	15-3	"
45000	18	17-11	"
50000	18	20-6	"
55000	20	17-0	"
60000	20	19-2	"
65000	20	21-3	"
70000	20	23-3	"
75000	22	19-3	"
80000	22	21-0	"
85000	22	22-10	"
90000	22	24-7	"
95000	22	26-5	"
100000	24	21-9	27
110000	24	24-9	"
120000	24	27-9	"
125000	25	25-11	"
130000	25	27-4	"
140000	26	26-11	30
150000	26	29-5	"
160000	28	25-8	"
170000	28	27-10	"
175000	28	28-11	"
180000	28	30-0	"
190000	30	26-3	"
200000	30	28-3	"
250000	32	31-1	36
300000	35	30-3	"
350000	35	37-3	"
400000	38	34-9	"
450000	38	40-6	"
500000	40	40-3	"
600000	45	35-9	"
700000	45	43-1	"
750000	45	47-3	"
800000	50	38-3	"
900000	50	45-0	"
1000000	50	51-8	"

We have templets on hand for the above sizes of tanks. We also have templets for the details of standard towers supporting these tanks. In your inquiry you need state only the capacity of tank and the height of tower "H" which is the elevation of the bottom of the tank above the cap stones. When requested, our quotation will include an expansion joint for the size riser pipe you require. This is fitted with a brass sleeve and is connected directly to the tank bottom. We also quote on riser pipes, frost casings, indicator boards, steam pipes and foundations when requested. We erect these tanks anywhere and request that you give us as much information as possible about the site of erection.

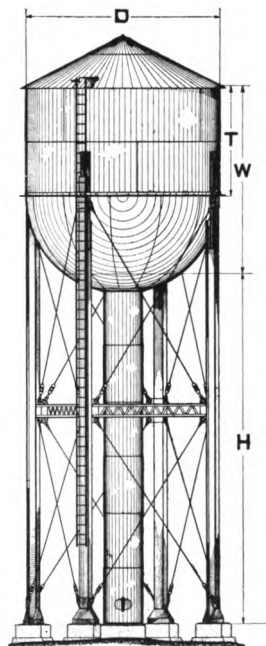
Please note that our tanks are all 3 inches higher than necessary to give the indicated capacity.

SUPERIOR TANKS

T I P P E T T & W O O D

Dimensions of Tanks

Capacity in U. S. Gallons	Diameter "D" in Feet	Height "T" Foot and Inches	Height "W" Foot and Inches
10000	12	8-6	13-0
15000	14	9-1	14-1
20000	16	8-8	14-8
25000	16	12-0	18-0
30000	18	10-5	17-5
35000	18	13-0	20-0
40000	20	11-0	19-0
50000	20	15-3	23-3
60000	22	14-6	24-0
75000	24	15-0	24-0
80000	24	16-6	25-6
100000	26	17-6	27-0
125000	28	18-10	29-4
150000	30	19-4	30-10
160000			
170000			
175000	32	19-4	31-10
200000	32	23-6	36-0
250000	35	24-2	37-8
300000	38	23-6	38-6
400000	40	30-3	46-3
500000	45	27-11	46-5
600000	50	25-0	46-0
700000	50	31-10	52-10
750000	50	35-3	56-3
800000	55	27-6	50-6
900000	55	33-0	56-0
1000000	55	38-9	61-9



We have templets on hand for most of the above tanks which are used largely by Railroads. The most common sizes are the same as the P. R. R. standard design and we furnish the latter company many each year. These tanks are 3 inches higher than necessary to hold the indicated capacity. The height "W" is the distance between high and low water levels. The tank holds more than the indicated capacity between these levels. The height of the tower "H" is the elevation of the low water level above the cap stones. In your inquiry please state the capacity and height "H" desired. We will furnish a revolving ladder in place of stationary one when called for in the inquiry.

Each tower has a downleg riveted to the centre of tank bottom which is from 4 to 6 feet in diameter according to the size of tank. A detail of our standard construction is shown on page 39. The pipe connections at bottom are made to suit your requirements.

T I P P E T T & W O O D

Dimensions and Weights of Bell and Spigot Cast Iron Pipe

Nominal Inside Diameter, Inches	100 FT. HEAD 43 LBS. PRESSURE			200 FT. HEAD 86.8 LBS. PRESSURE			300 FT. HEAD 130 LBS. PRESSURE			Approximate lbs. Lead Per Joint 2 Inches Thick	Approximate lbs. Hemp Per Joint
	Thick- ness Inches	Weight Per		Thick- ness Inches	Weight Per		Thick- ness Inches	Weight Per			
		Foot	Length		Foot	Length		Foot	Length		
3	.39	14.5	175	.42	16.2	194	.45	17.1	205	6.00	.18
4	.42	20.0	240	.45	21.7	260	.48	23.3	280	7.50	.21
6	.44	30.8	370	.48	33.3	400	.51	35.8	430	10.25	.31
8	.46	42.9	515	.51	47.5	570	.56	52.1	625	13.25	.44
10	.50	57.1	685	.57	63.8	765	.62	70.8	850	16.00	.53
12	.54	72.5	870	.62	82.1	985	.68	91.7	1100	19.00	.61
14	.57	89.6	1075	.66	102.5	1230	.74	116.7	1400	22.00	.81
16	.60	108.3	1300	.70	125.0	1500	.80	143.8	1725	30.00	.94
18	.64	129.2	1550	.75	150.0	1800	.87	175.0	2100	33.80	1.00
20	.67	150.0	1800	.80	175.0	2100	.92	208.3	2500	37.00	1.25
24	.76	204.2	2450	.89	233.3	2800	1.04	279.2	3350	44.00	1.50
30	.88	291.7	3500	1.03	333.3	4000	1.20	400.0	4800	54.25	2.06
36	.99	391.7	4700	1.15	454.2	5450	1.36	545.8	6550	64.75	3.00
42	1.10	512.5	6150	1.28	591.7	7100	1.54	716.7	8600	75.25	3.62
48	1.26	666.7	8000	1.42	750.0	9000	1.71	908.3	10900	85.50	4.37
54	1.35	800.0	9600	1.55	933.3	11200	1.90	1141.7	13700	97.60	6.25
60	1.39	916.7	11000	1.67	1104.2	13250	2.00	1341.7	16100	108.30	8.25
72	1.62	1281.9	15380	1.95	1547.3	18570	2.39	1904.3	22850	131.25	12.50
84	1.72	1635.8	19630	2.22	2104.1	25250				152.00	15.00

SUPERIOR TANKS

TIPPETT & WOOD

Capacities of Cylinders and Tank Bottoms. Circumference of and Area Enclosed by Cylinders

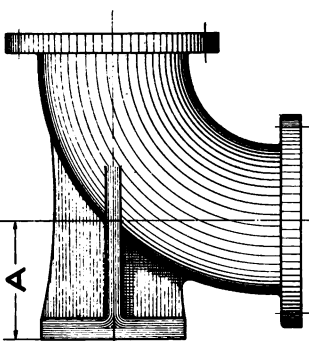
Diameter in Feet	U. S. Gallons Per Vertical Ft. of Cylinder	U. S. Gallons in Hemispherical Bottom	Circumference of Cylinder	Area of Circle	Diameter in Feet	U. S. Gallons Per Vertical Ft. of Cylinder	Circumference of Cylinder	Area of Circle
1	5.9	1.9	3.1416	.7854	51	15.281	160.221	2042.8
2	23.5	15.6	6.2832	3.1416	52	15.887	163.363	2123.7
3	52.9	52.9	9.4248	7.0686	53	16.503	166.504	2206.2
4	94.0	124	12.566	12.566	54	17.132	169.646	2290.2
5	146.9	245	15.708	19.635	55	17.772	172.788	2375.8
6	211.5	423	18.850	28.274	56	18.425	175.929	2463.0
7	287.9	672	21.991	38.485	57	19.089	179.071	2551.8
8	376.0	1003	25.133	50.265	58	19.764	182.212	2642.1
9	475.9	1427	28.274	63.617	59	20.452	185.354	2734.0
10	587.5	1958	31.416	78.540	60	21.151	188.496	2827.4
11	711	2607	34.558	95.033	61	21.862	191.637	2922.5
12	846	3385	37.699	113.10	62	22.584	194.779	3019.1
13	993	4303	40.841	132.73	63	23.319	197.920	3117.2
14	1152	5374	43.982	153.94	64	24.065	201.062	3217.0
15	1322	6610	47.124	176.71	65	24.823	204.204	3318.3
16	1504	8022	50.265	201.06	66	25.592	207.345	3421.2
17	1698	9621	53.407	226.98	67	26.374	210.487	3525.7
18	1904	11422	56.549	254.47	68	27.167	213.628	3631.7
19	2121	13432	59.690	283.53	69	27.972	216.770	3739.3
20	2350	15667	62.832	314.16	70	28.788	219.911	3848.5
21	2591	18137	65.973	346.36	71	29.617	223.053	3959.2
22	2844	20853	69.115	380.13	72	30.457	226.195	4071.5
23	3108	23828	72.257	415.48	73	31.309	229.336	4185.4
24	3384	27073	75.398	452.39	74	32.173	232.478	4300.8
25	3672	30600	78.540	490.87	75	33.048	235.619	4417.9
26	3972	34421	81.681	537.93	76	33.935	238.761	4536.5
27	4283	38547	84.823	572.56	77	34.834	241.903	4656.6
28	4606	42991	87.965	615.75	78	35.745	245.044	4778.4
29	4941	47763	91.106	660.52	79	36.667	248.186	4901.7
30	5288	52877	94.248	706.86	80	37.601	251.327	5026.5
31	5646	58342	97.389	754.77	81	38.547	254.469	5153.0
32	6016	64170	100.531	804.25	82	39.505	257.611	5281.0
33	6398	70378	103.673	855.30	83	40.474	260.752	5410.6
34	6792	76976	106.814	907.92	84	41.455	263.894	5541.8
35	7197	83965	109.956	962.11	85	42.448	267.035	5674.5
36	7614	91368	113.097	1017.9	86	43.453	270.177	5808.8
37	8043	99197	116.239	1075.2	87	44.469	273.319	5944.7
38	8484	107464	119.381	1134.1	88	45.498	276.460	6082.1
39	8936	116168	122.522	1194.6	89	46.537	279.602	6221.1
40	9400	125333	125.664	1256.6	90	47.589	282.743	6361.7
41	9876	134972	128.805	1320.3	91	48.653	285.885	6503.9
42	10364	145096	131.947	1385.4	92	49.727	289.027	6647.6
43	10863	155703	135.088	1452.2	93	50.815	292.168	6792.9
44	11374	166819	138.230	1520.5	94	51.913	295.310	6939.8
45	11897	178455	141.372	1590.4	95	53.024	298.451	7088.2
46	12432	190624	144.513	1661.9	96	54.146	301.593	7238.2
47	12978	203322	147.655	1734.9	97	55.280	304.734	7389.8
48	13536	216576	150.796	1809.6	98	56.425	307.876	7543.0
49	14106	230398	153.938	1885.7	99	57.583	311.018	7697.7
50	14688	244800	157.080	1963.5	100	58.752	314.159	7854.0

SUPERIOR TANKS

T I P P E T T & W O O D

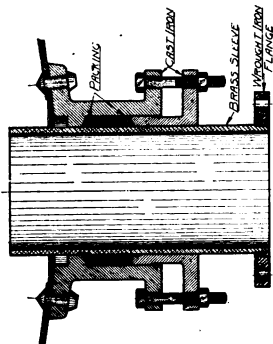
Wrought Iron and Steel Water Pipe

DIAMETER IN INCHES			Nominal Thickness in Inches	TRANSVERSE AREAS IN SQUARE INCHES			Nominal Weight per Foot	Number of Threads per Inch of Screw
Nominal Internal	Actual External	Approximate Internal		External	Internal	Metal		
¾"	.405	.270	.068	.129	.0568	.0720	.241	27
1"	.540	.364	.088	.229	.1041	.1249	.420	18
¾"	.675	.494	.091	.358	.1909	.1669	.559	18
1 ¼"	.840	.623	.109	.554	.3039	.2503	.837	14
1"	1.050	.824	.113	.846	.5333	.3327	1.115	14
1"	1.315	1.048	.134	1.358	.8609	.4972	1.668	11 ½
1 ½"	1.660	1.390	.140	2.164	1.496	.6685	2.244	11 ½
1 ½"	1.900	1.611	.145	2.835	2.038	.7995	2.678	11 ½
2"	2.375	2.067	.154	4.430	3.356	1.074	3.609	11 ½
2 ½"	2.875	2.468	.204	6.492	4.780	1.712	5.739	8
3"	3.500	3.067	.217	9.621	7.388	2.238	7.536	8
3 ½"	4.000	3.548	.226	12.566	9.887	2.680	9.001	8
4"	4.500	4.026	.237	15.904	12.730	3.175	10.665	8
4 ½"	5.000	4.508	.246	19.635	15.961	3.675	12.340	8
5"	5.563	5.045	.259	24.306	19.985	4.321	14.502	8
6"	6.625	6.065	.280	34.472	28.886	5.586	18.762	8
7"	7.625	7.023	.301	45.664	38.743	6.921	23.271	8
8"	8.625	7.982	.322	58.426	50.021	8.405	28.177	8
9"	9.625	8.937	.344	72.760	62.772	10.040	33.701	8
10"	10.75	10.019	.366	90.763	78.822	11.940	40.065	8
11"	11.75	11.000	.375	108.434	95.034	13.401	45.950	8
12"	12.75	12.000	.375	127.677	113.098	14.590	48.985	8



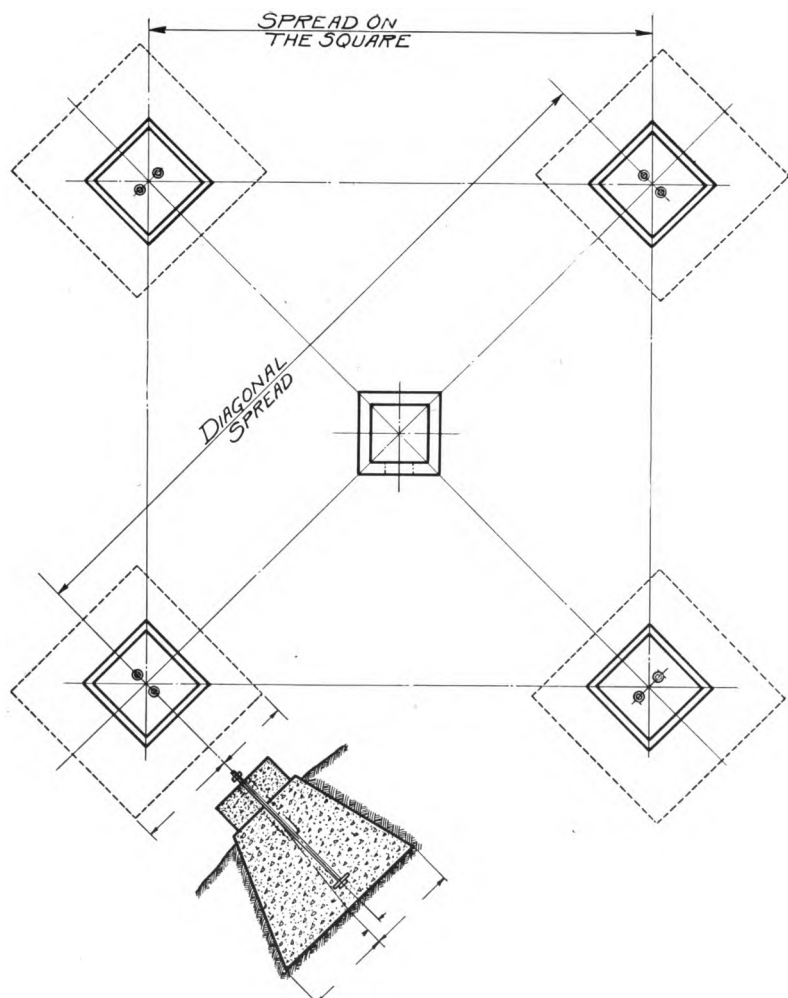
Standard Expansion Joints and Base Elbows

Dimensions of Standard Com- panion Flanges and Height of Base Elbows



ALL DIMENSIONS ARE GIVEN IN INCHES

Size Pipe.....	3/4	1	1 1/4	2	2 1/2	3	3 1/2	4	4 1/2	5	5 1/2	6	7	8	9	10	12	14	15	16	18	20	22	24
Diam. of Flange.....	3 1/2	4	4 1/2	5	6	7	7 1/2	8 1/2	9	9 1/2	10	11	12 1/2	13 1/2	15	16	19	21	22 1/4	23 1/2	25	27 1/2	29 1/2	32
Thickness of Flange....	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8
Diam. of Hub.....	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
Length of Thread.....	5/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8
Diam. of Bolt Circle...	2 1/2	3	3 1/2	3 1/2	4 1/2	5 1/2	6	7	7 1/2	8 1/2	9 1/2	10 1/2	11 1/2	12 1/2	14 1/2	17	18 1/2	20	21 1/2	22 1/2	25	27 1/2	29 1/2	32
Number of Bolts.....	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Size of Bolts.....	3/8	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
Length of Bolts.....	1 1/2	1 1/2	1 1/2	1 1/2	2	2 1/2	2 1/2	2 1/2	2 1/2	3	3	3	3	3 1/4	3 1/4	3 1/4	3 1/4	3 1/4	3 1/4	3 1/4	4 1/4	5	5 1/2	5 1/2
Diam. of Bolt Holes...	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
Distance A.....																								



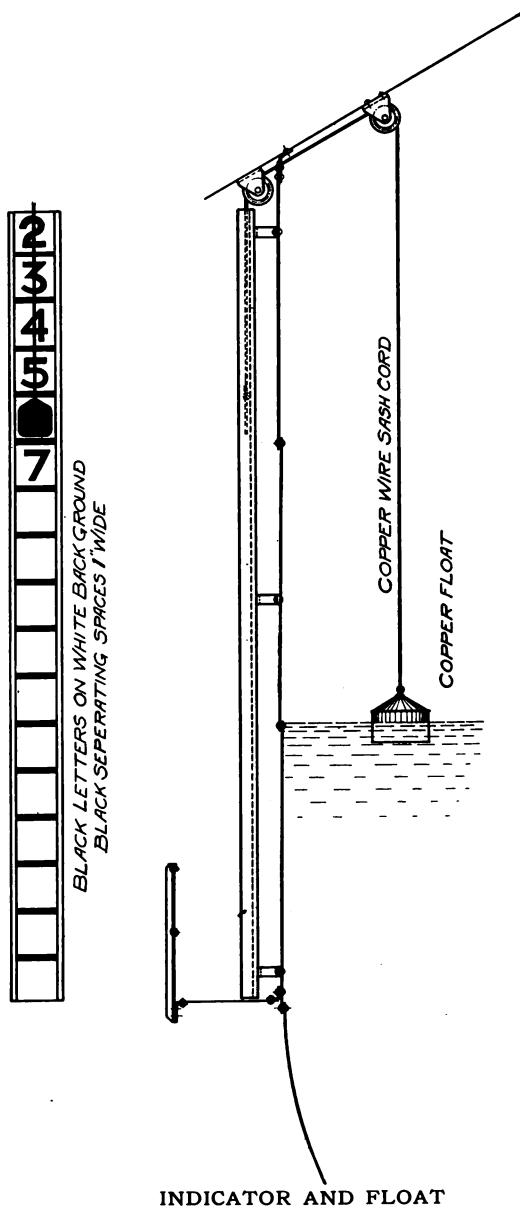
Foundation Plan for Standard Towers

This plan shows the general arrangement of the piers and how they are constructed. The diagonal and side spreads of STANDARD TOWERS on centre line of capstones can be determined very closely as follows, where D and H are in feet:

$$\text{Side Spread} = .707D + .147\left(H + \frac{D}{2}\right) + 1\frac{1}{2}''$$

$$\text{Diagonal Spread} = D + .208\left(H + \frac{D}{2}\right) + 2''$$

The exact spread of each tower is given by us with every proposition and a foundation plan is furnished free of charge upon receipt of order for tower. We furnish the anchor bolts shown, with the tower. We assume no responsibility for the safety of foundations not placed by ourselves.



Accessories for Stand-pipes and Water Towers

We manufacture a complete line of accessories and suggest that you specify them in your order. In ordering ladders always state where ladder is to start and end. Also state if ladder is desired inside of tank. The size of pipe should be given and whether cast iron or wrought iron.

- Roofs
- Inside Covers
- Ladders
- Indicators
- Riser Pipes
- Steam Coils
- Pipe Connections
- Expansion Joints
- Pipe Casing
- Pipe Stay, Rings
and Rods
- Manholes

TIPPETT & WOOD

Useful Information

One cubic foot of water at 62 degrees F weighs 62.355 lbs.

One U. S. Gallon of water at 62 degrees F weighs 8.33 lbs.

One cubic foot is equivalent to 7.48 U. S. gallons.

One U. S. Gallon contains 231 cubic inches.

One Imperial Gallon is equivalent to 1.2 U. S. Gallons.

A pressure of one lb. per square inch is produced by 2.31 feet of water at 62 degrees F. To find the pressure per square inch due to a column of water, divide its height in feet by 2.31 or multiply by .433.

One foot of water at 39 degrees F is equivalent to .8826 inches of mercury at 30 degrees.

One inch of mercury at 32 degrees is equivalent to 1.133 feet of water.

Fire Stream Data for 1-Inch Smooth Nozzle

This Table also serves for 1½-Inch Ring Nozzle

Indicated Pressure Lbs.	Best Fire Jet		Gallons per Minute	Height of Tower required to maintain Fire Streams as shown in columns 2 and 3 through 2½-Inch Rubber Hose Lines					
	Height Foot	Reach Foot		50 Foot	100 Foot	200 Foot	300 Foot	400 Foot	500 Foot
25	43	42	147	67	71	82	94	106	117
30	51	47	161	77	84	99	113	126	140
35	58	51	174	92	102	117	131	147	163
40	64	55	186	106	115	133	151	168	186
45	69	58	198	119	129	149	170	191	209
50	73	61	208	131	142	165	188	211	234
55	76	64	218	145	158	181	207	232	257
60	79	67	228	158	172	200	226	253	280
65	82	70	237	172	186	216	246	273	303
70	85	72	246	184	200	232	264	294	327
75	87	74	255	197	216	248	282	317	349
80	89	76	263	211	230	264	300	338	372
85	91	78	274	226	243	282	319	359	398
90	92	80	279	237	257	298	338	379	420
95	94	82	287	250	271	314	359	400	444
100	96	83	295	264	287	331	377	420	467

Fire Stream Data for 1½-Inch Smooth Nozzle

Indicated Pressure Lbs. at Nozzle	Best Fire Jet		Gallons per Minute	Height of Tower required to maintain Fire Streams as Shown in columns 2 and 3 through 2½-Inch Rubber Hose Lines					
	Height Foot	Reach Foot		50 Foot	100 Foot	200 Foot	300 Foot	400 Foot	500 Foot
25	44	44	188	72	80	100	119	137	156
30	52	50	206	86	96	121	142	165	186
35	59	54	222	100	112	140	165	190	218
40	65	59	238	116	128	161	188	218	248
45	70	63	252	130	144	180	204	246	278
50	75	66	266	144	160	201	227	274	310
55	80	69	279	158	176	222	250	302	340
60	83	72	291	172	192	241	273	327	370
65	86	75	303	188	208	262	296	355	402
70	88	77	314	202	224	281	322	383	432
75	90	79	325	216	240	302	345	411	464
80	92	81	336	230	256	323	368	436	494
85	94	83	346	246	272	342	391	464	524
90	96	85	356	260	288	363	414	492	556
95	98	87	366	274	304	382	439	520	586
100	99	89	376	288	320	403	462	548	608

T I P P E T T & W O O D

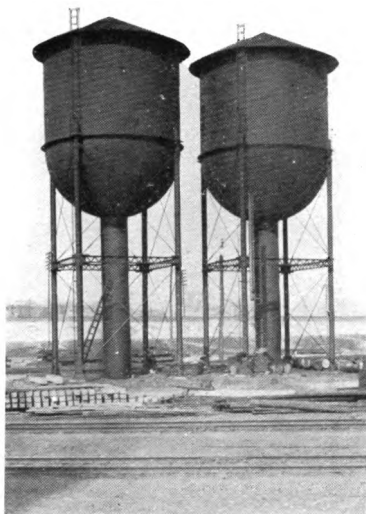
Velocities, Velocity Heads, Frictional Losses per 100 Ft. of Pipe and Discharges

IN SMOOTH, CAST OR WROUGHT IRON PIPES

Vel. in Ft. per Sec.		NOMINAL DIAMETER OF PIPE IN INCHES																20"					
		3"		3 1/2"		4"		6"		8"		10"		12"		14"				16"		18"	
		Fric. Head	Cu. Ft. per Min.	Fric. Head	Cu. Ft. per Min.	Fric. Head	Cu. Ft. per Min.	Fric. Head	Cu. Ft. per Min.	Fric. Head	Cu. Ft. per Min.	Fric. Head	Cu. Ft. per Min.	Fric. Head	Cu. Ft. per Min.	Fric. Head	Cu. Ft. per Min.			Fric. Head	Cu. Ft. per Min.	Fric. Head	Cu. Ft. per Min.
2.0	.062	.66	5.9	.57	8.0	.49	10.4	.33	23.5	.25	41.9	.20	65	.17	94	.14	128	.123	167	.110	212	.099	262
2.2	.075	.78	6.5	.67	8.8	.59	11.5	.39	25.9	.29	46.1	.23	72	.20	103	.17	141	.146	184	.123	233	.117	288
2.4	.090	.91	7.1	.78	9.6	.68	12.5	.46	28.2	.34	50.2	.27	85	.23	113	.20	154	.171	201	.137	254	.130	314
2.6	.105	1.05	7.7	.90	10.4	.79	13.6	.53	30.6	.39	54.4	.32	98	.26	122	.23	167	.197	218	.158	275	.150	340
2.8	.122	1.20	8.3	1.03	11.2	.90	14.6	.60	32.9	.45	58.6	.36	112	.29	132	.26	179	.225	234	.190	303	.180	366
3.0	.140	1.35	8.8	1.16	12.0	1.02	15.7	.68	35.3	.51	62.8	.41	126	.33	141	.29	192	.255	251	.204	318	.190	393
3.2	.160	1.52	9.4	1.31	12.8	1.14	16.7	.76	37.7	.57	67.0	.46	140	.35	151	.33	205	.286	268	.229	339	.225	415
3.4	.180	1.70	10.0	1.46	13.6	1.27	17.8	.85	40.0	.64	71.2	.51	155	.38	160	.37	218	.319	284	.255	360	.245	445
3.6	.202	1.89	10.6	1.62	14.4	1.41	18.8	.94	42.4	.71	75.4	.57	170	.43	169	.40	231	.354	301	.283	382	.275	471
3.8	.225	2.08	11.2	1.78	15.2	1.56	19.9	1.04	44.7	.78	79.6	.62	184	.47	179	.45	245	.390	318	.314	403	.303	500
4.0	.250	2.28	11.8	1.96	16.0	1.71	20.9	1.14	47.1	.86	83.7	.69	199	.52	188	.49	256	.428	335	.342	424	.332	527
4.2	.275	2.49	12.3	2.14	16.8	1.87	22.0	1.25	49.5	.94	87.9	.75	213	.57	198	.53	269	.468	352	.374	445	.364	550
4.4	.302	2.71	12.9	2.33	17.6	2.03	23.0	1.35	51.8	1.02	92.1	.81	228	.63	207	.58	282	.509	368	.407	466	.397	576
4.6	.330	2.94	13.5	2.52	18.4	2.21	24.0	1.47	54.1	1.10	96.3	.88	243	.70	216	.63	295	.552	385	.441	488	.431	604
4.8	.360	3.18	14.1	2.71	19.2	2.39	25.1	1.59	56.5	1.18	100	.95	258	.76	226	.68	308	.596	402	.477	509	.467	626
5.0	.390	3.43	14.7	2.91	20.0	2.57	26.2	1.71	58.9	1.28	105	1.03	273	.86	235	.73	321	.642	419	.514	531	.504	654
5.2	.422	3.68	15.3	3.10	20.8	2.76	27.2	1.84	61.2	1.38	109	1.10	288	.92	245	.78	336	.690	435	.552	552	.542	679
5.4	.455	3.93	15.9	3.29	21.6	2.96	28.2	1.97	63.6	1.48	113	1.16	303	.99	254	.83	350	.740	452	.594	572	.584	707
5.6	.488	4.18	16.5	3.48	22.4	3.17	29.2	2.10	66.0	1.58	117	1.23	318	1.06	264	.89	365	.791	469	.632	594	.622	733
5.8	.522	4.43	17.1	3.67	23.2	3.37	30.3	2.23	68.3	1.68	121	1.30	333	1.13	274	.96	380	.843	486	.749	616	.738	758
6.0	.556	4.68	17.7	3.86	24.0	3.58	31.3	2.36	70.7	1.79	125	1.36	348	1.19	283	1.02	395	.895	502	.798	636	.785	793
6.2	.590	4.93	18.3	4.05	24.8	3.80	32.4	2.49	73.0	1.90	130	1.42	363	1.27	292	1.09	409	.947	519	.847	658	.834	808
6.4	.625	5.18	18.9	4.24	25.6	4.01	33.4	2.62	75.4	2.02	134	1.48	378	1.35	301	1.15	423	1.00	536	.950	700	.935	855
6.6	.660	5.43	19.5	4.43	26.4	4.23	34.5	2.75	77.7	2.14	138	1.54	393	1.43	310	1.22	438	1.07	553	.980	721	.964	890
6.8	.695	5.68	20.0	4.62	27.2	4.45	35.6	2.88	80.1	2.26	142	1.61	408	1.50	319	1.29	453	1.13	569	1.00	742	.994	940
7.0	.730	5.93	20.6	4.81	28.0	4.67	36.6	3.01	82.4	2.38	146	1.69	423	1.59	330	1.36	469	1.19	586	1.06	763	.983	916

SUPERIOR TANKS

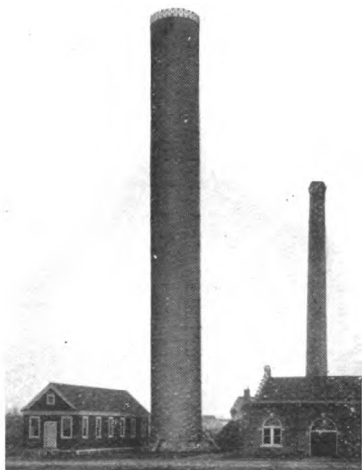
T I P P E T T & W O O D



WATER TOWERS FOR P. R. R.
 Capacity each 50,000 Gals. Height
 24 Ft. to Bottom of Tank
 Erected at Baltimore, Md., in 1911



WATER TOWER FOR L. V. R. R.
 Capacity 100,000 Gals., Height 22
 Ft. to Bottom of Tank
 Erected at West Manchester, N. Y.,
 in 1911



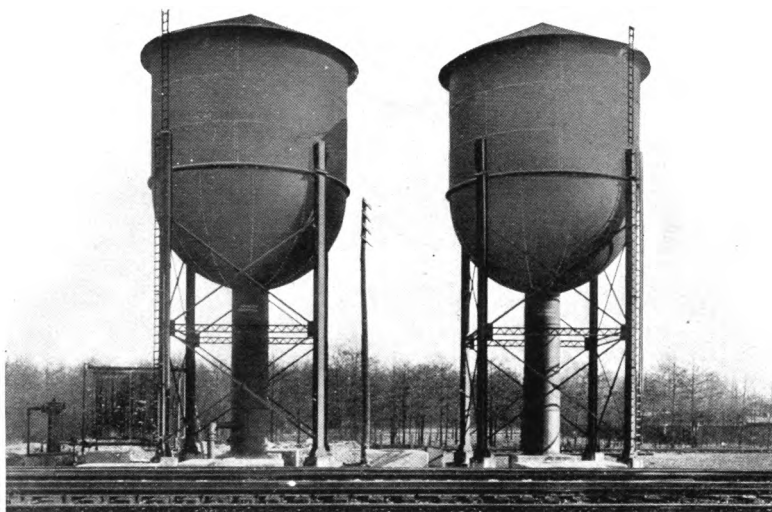
**STAND-PIPE FOR THE ELBER-
 ON WATER AND LIGHT CO.**
 Diam. 18 Ft., Height 150 Ft.
 Capacity 285,600 Gals.
 Erected at Elberon, N. J., in 1906



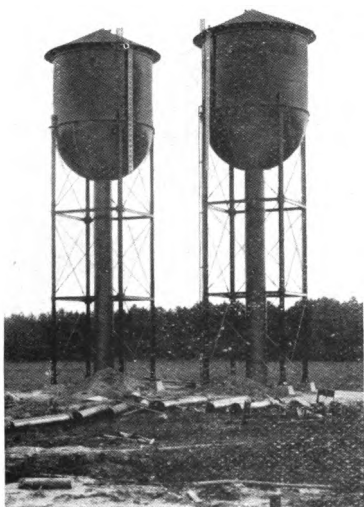
**WATER TOWER FOR NEW
 JERSEY ZINC CO.**
 Capacity 100,000 Gals., Height
 100 Ft. to Bottom of Tank
 Erected at Palmerton, Pa., in 1911

SUPERIOR TANKS

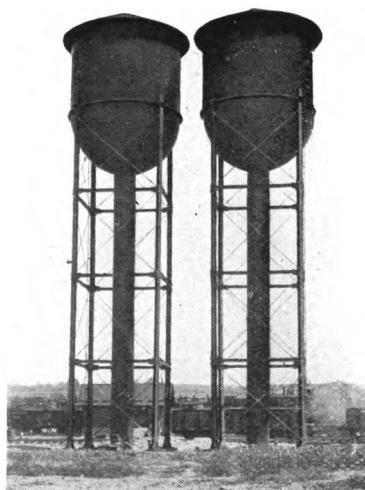
T I P P E T T & W O O D



WATER TOWERS FOR P. R. R.
Capacity each 100,000 Gals., Height 22 Ft. to Bottom of Tank
Erected at Rahway, N. J.



**WATER TOWERS FOR N. Y., P.
& N. R. R.**
Capacity each 50,000 Gals., Height
24 Ft. to Bottom of Tank
Erected at Cape Charles, Va.



WATER TOWERS FOR P. R. R.
Capacity 50,000 Gals., Height 51
Ft. to bottom of Tank
Erected at Northumberland, Pa., in
1911

SUPERIOR TANKS

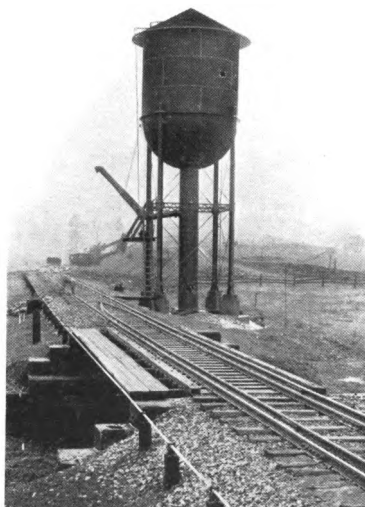
T I P P E T T & W O O D



WATER TOWER FOR L. V. R. R.
Capacity 100,000 Gals., Height
16 Ft. to Bottom of Tank
Erected at East Manchester, N. Y.,
in 1911



**WATER TOWER FOR
ARMSTRONG CORK CO.**
Capacity 60,000 Gals., Height 110
Ft. to Bottom of Tank
Erected at Camden, N. J. in 1912

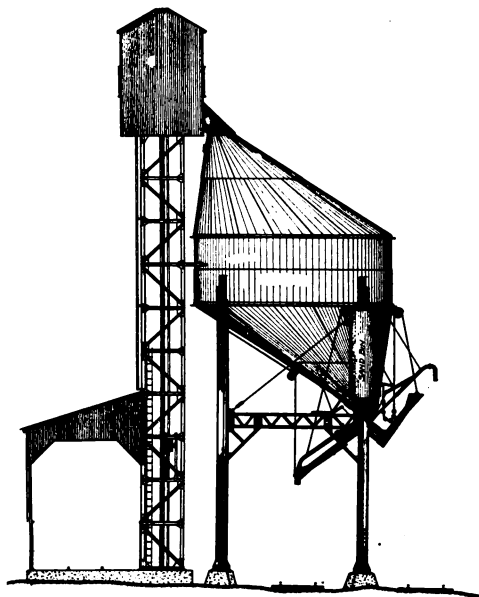


WATER TOWER FOR P. R. R.
Capacity 35,000 Gals., Height 22
Ft. to Bottom of Tank
Erected at Auburn, Pa., in 1911



**WATER TOWER FOR
BOROUGH OF LODI**
Capacity 50,000 Gals., Height 46
Ft. to Bottom of Tank
Erected at Lodi, N. J., in 1910

SUPERIOR TANKS



Standard Steel Coaling Stations

These stations are usually built with a capacity of from 150 to 600 tons for an individual installation. They are far superior to and rapidly replacing the old wooden types. They are recommended for their permanency and economy in maintenance.

We will build and furnish estimate for steel coaling stations in exact accordance with your plans and specifications. We would prefer, however, that you give us your requirements and we will furnish a design and specification which will be the most economical arrangement and in accordance with our standard practice in design and details. The use of standard details in tower construction for which we have shop templets and forming blocks, will result in the lowest cost of fabrication. This means a saving to you as we can consequently give a corresponding lower price.

Inform us of the desired capacity of bin, the number of tracks to be served and their distance apart and we will be pleased to furnish design and estimate to deliver and erect this material at any place designated by you. If sand bin is required, please state desired capacity. These stations are an economical necessity to distributors of coal for domestic requirements as well as to the railroads.

T I P P E T T & W O O D



WATER TOWER FOR L. V. R. R.
Capacity 70,000 Gals., Height 19 Ft. to Bottom of Tank
Erected at Hinkles, Pa., in 1911



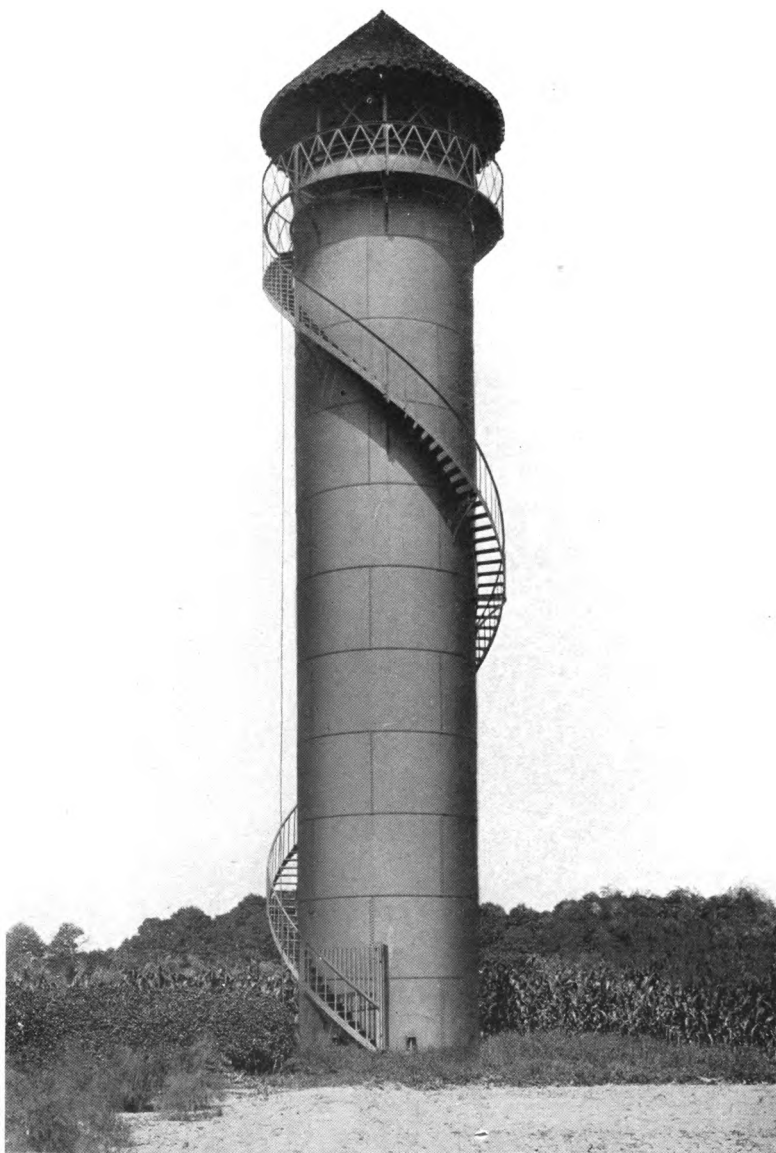
WATER TOWER FOR
E. H. FITLER & CO.
Capacity 50,000 Gals., Height 100
Ft. to Bottom of Tank
Erected at Philadelphia, Pa., in
1914



WATER TOWER FOR
LOWELL FERTILIZER CO.
Capacity 75,000 Gals., Height 75
Ft. to Bottom of Tank
Erected at Lowell, Mass., in 1909

SUPERIOR TANKS

T I P P E T T & W O O D



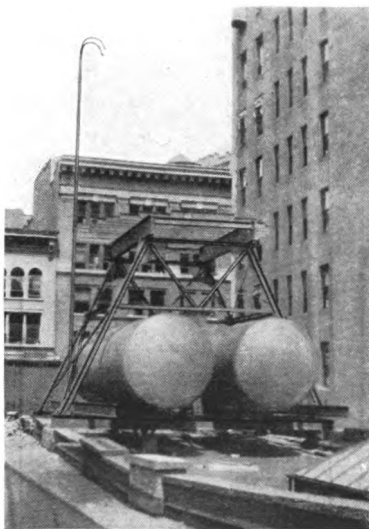
STAND-PIPE FOR CROSBY S. NOYES
Diam. 12 Ft., Height 60 Ft., Capacity 50,000 Gals.
Erected at Silver Spring, Md., in 1898

SUPERIOR TANKS

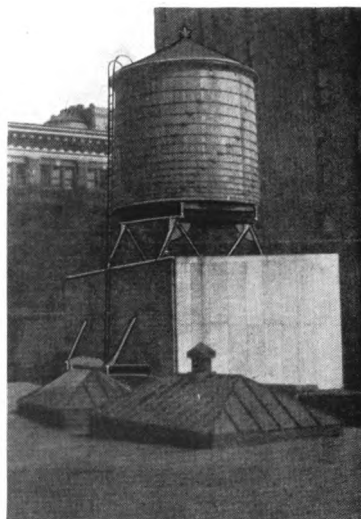
T I P P E T T & W O O D



10,000 GAL. GRAVITY TANK AND 7500 GAL. PRESSURE TANK
Erected for Earnest Gabler and Bros., in New York, N. Y.



**PRESSURE TANKS AND STEEL
FRAME**



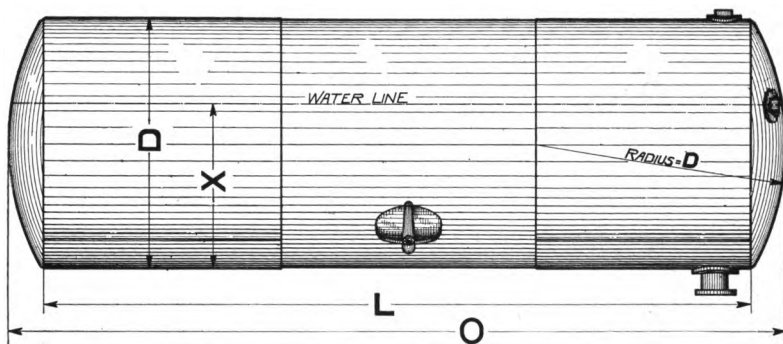
COMPLETED STRUCTURE

25,000 Gal. Gravity Tank and 2-9000 Gal. Pressure Tanks
Erected for Caroline H. Johnson, at New York, N. Y.

SUPERIOR TANKS

TIPPETT & WOOD

Pressure Tanks For Sprinkler Systems



Capacity	Diameter D	Length Shell L	Length Over All O	Water Level X
3,500	6'-0"	17'-0"	18'-7"	3'-9 1/2"
4,000	6'-0"	19'-0"	20'-7"	3'-9 1/2"
4,500	6'-0"	21'-6"	23'-1"	3'-9 1/2"
5,000	6'-0"	24'-0"	25'-7"	3'-9 1/2"
5,000	7'-0"	17'-4"	19'-2"	4'-5 1/4"
5,000	7'-6"	15'-0"	17'-0"	4'-9"
5,000	8'-0"	13'-0"	15'-2"	5'-0 1/2"
6,000	6'-0"	28'-6"	30'-1"	3'-9 1/2"
6,000	7'-0"	21'-0"	22'-10"	4'-5 1/4"
6,000	7'-6"	18'-2"	20'-2"	4'-9"
6,000	8'-0"	16'-0"	18'-2"	5'-0 1/2"
6,500	7'-0"	23'-0"	24'-10"	4'-5 1/4"
7,000	7'-0"	24'-6"	26'-4"	4'-5 1/4"
7,500	7'-0"	26'-0"	27'-10"	4'-5 1/4"
7,500	7'-6"	22'-8"	24'-8"	4'-9"
7,500	8'-0"	20'-0"	22'-2"	5'-0 1/2"
7,500	8'-6"	17'-8"	20'-0"	5'-4 1/2"
7,500	9'-0"	15'-9"	18'-4"	5'-8 1/4"
8,000	7'-0"	28'-0"	29'-10"	4'-5 1/4"
8,500	7'-6"	26'-0"	28'-0"	4'-9"
9,000	7'-6"	27'-0"	29'-0"	4'-9"
9,000	8'-0"	24'-0"	26'-2"	5'-0 1/2"
9,000	8'-6"	21'-2"	23'-6"	5'-4 1/2"
9,000	9'-0"	18'-10"	21'-5"	5'-8 1/4"

These tanks are built in accordance with the requirements of the FIRE INSURANCE ASSOCIATIONS and the ordinances of any state and city. The capacity given is the volume contained in the cylindrical portion of tank not including the dished heads. Tanks for New York are designed for working pressure of 75 to 85 lbs. per square inch and are tested at our plant to 150 lbs. hydrostatic pressure for at least two hours.

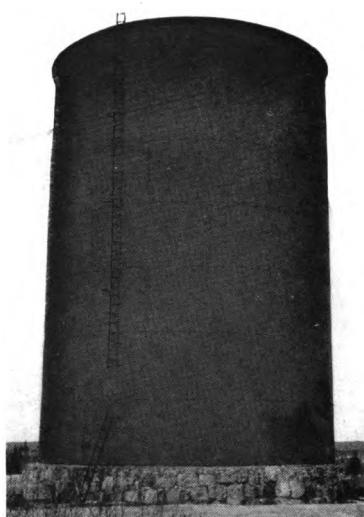
In your inquiry please state capacity of tank desired, the city in which it is to be erected, and all information available pertaining to the limitations of space to be occupied and location of walls and columns which might be used for supports.

SUPERIOR TANKS

T I P P E T T & W O O D



WATER TOWER FOR L. V. R. R.
 Capacity 100,000 Gals., Height 28
 Ft. to Bottom of Tank
 Erected at Tunkhannock, Pa., in
 1910



**STAND-PIPE FOR
 STONINGTON WATER CO.**
 Diam. 35 Ft., Height 50 Ft.
 Capacity 360,000 Gals.
 Erected at Stonington, Me., in 1909



**STAND-PIPE FOR TOWN OF
 NORTH HAVEN**
 Diam. 25 Ft., Height 67 Ft.
 Capacity 246,000 Gals.
 Erected at North Haven, Me., in
 1911



**WATER TOWER FOR U. S.
 ARSENAL**
 Capacity 75,000 Gals., Height 120
 Ft. to Bottom of Tank
 Erected at Frankford, Pa., in 1905

SUPERIOR TANKS

T I P P E T T & W O O D



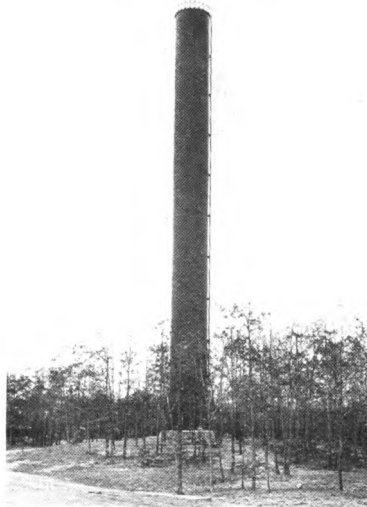
WATER TOWER FOR P. R. R.
Capacity 35,000 Gals., Height 22
Ft. to Tank Bottom
Erected at Penns Grove, N. J., in
1910



**WATER TOWER FOR THE
HAEMMERSCHLAG MFG. CO.**
Capacity 100,000 Gals., Height 100
Ft. to Tank Bottom
Erected at Garfield, N. J., in 1911



**WATER TOWER FOR WATER
WORKS AT PLEASANT
PLAINS, STATEN ISLAND, N. Y.**
Capacity 40,000 Gals., Height 75
Ft. to Bottom of Tank
Erected in 1900



**STAND-PIPE FOR SEA VIEW
GOLF CLUB**
Diam. 10 Ft., Height 120 Ft.
Capacity 176,250 Gals.
Erected at Pleasantville, N. J., in
1914

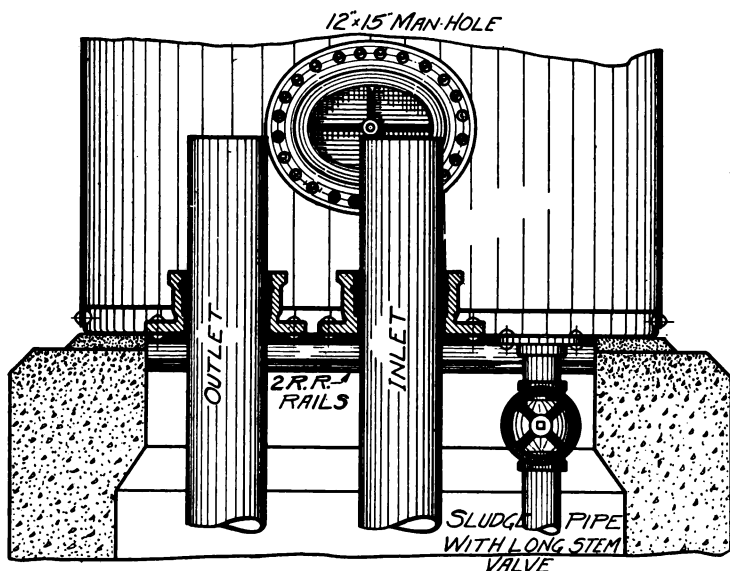
SUPERIOR TANKS

T I P P E T T & W O O D



WATER TOWER, FOR P. R. R.
Capacity 35,000 Gals., Height 22 Ft. to Bottom of Tank
Erected at Elmer, N. J., in 1911

SUPERIOR TANKS



Riveted Steel Downlegs

Riveted steel pipes of large diameter are being used extensively on water towers today in preference to cast iron or wrought pipe with wood casing for frost protection. On the larger diameters of cast and wrought pipe the cost including the wood casing is greater than that of the riveted pipe. Riveted pipes or downlegs, as they are called, are made from 4 to 6 feet in diameter, depending on the size storage tank, and number and size connecting pipes at the bottom of downleg. They need no casing because they will not freeze up on account of the large diameter. They are made of heavy plate and shipped in sections. When the number and size of connecting pipes are stated in the inquiry, our quotation will include the required fittings on the downleg. It is a permanent installation, avoiding the usual expense for frequent repair on riser pipes and casings and is better suited and more pleasing in appearance on an all steel water tower.

The downleg also acts as a settling basin for any solid matter which enters with the water. This sediment can be easily blown out from time to time through a valve conveniently located underneath. A manhole is provided which will permit easy access to the interior of downleg for inspection of pipes attached to same.

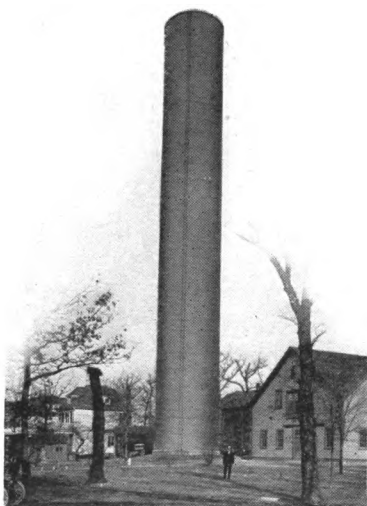
T I P P E T T & W O O D



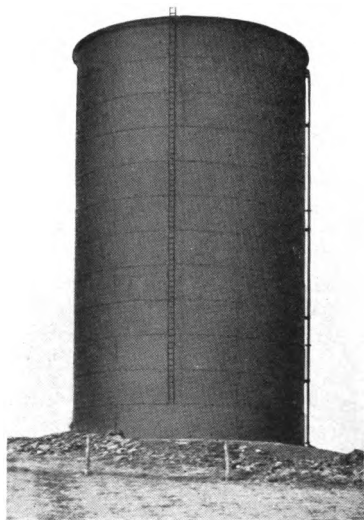
WATER TOWER FOR L. V. R. R.
Capacity 100,000 Gals., Height 23
Ft. 6 inches to Bottom of Tank
Erected at Reider, N. J., in 1911



WATER TOWER FOR P. R. R.
Capacity 50,000 Gals., Height 24
Ft. to Bottom of Tank
Erected at Northumberland, Pa., in
1911



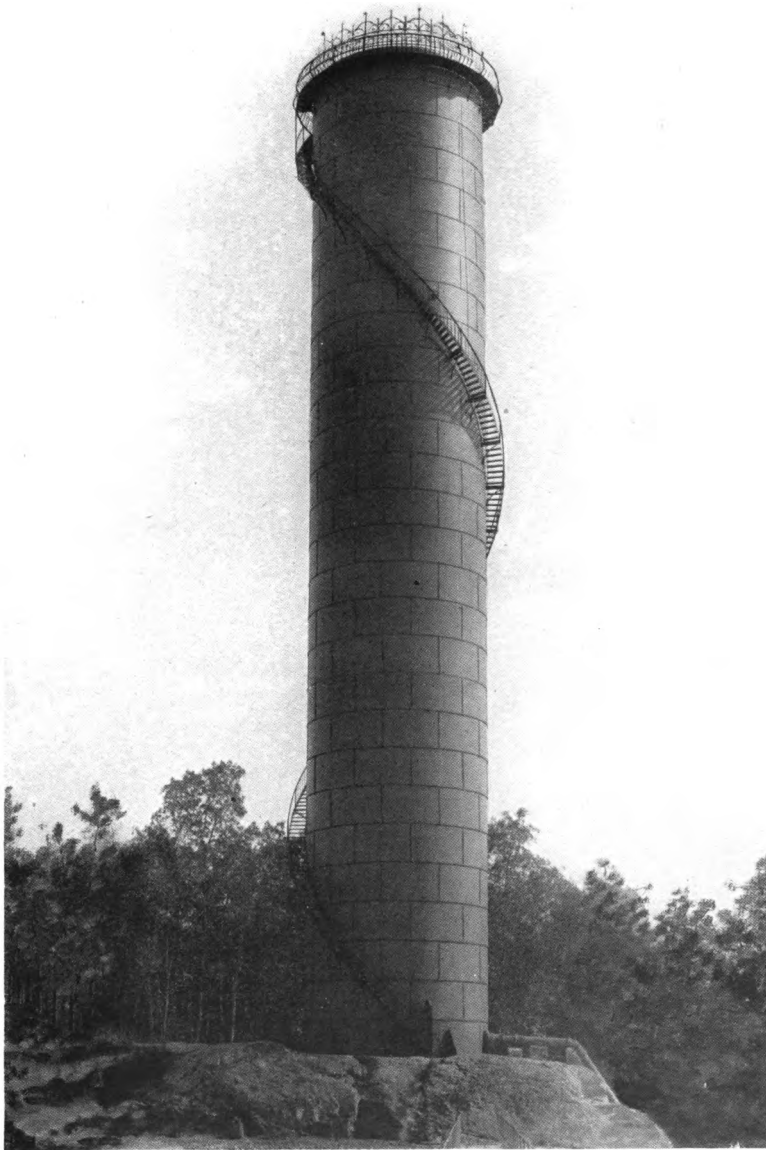
**STAND-PIPE FOR QUEENS CO.
WATER CO.**
Diam. 20 Ft., Height 140 Ft.
Capacity 330,000 Gals.
Erected at Far Rockaway, L. I., in
1909



**STAND-PIPE FOR TOWN OF
SO. HADLEY**
Diam. 35 Ft., Height 60 Ft.
Capacity 431,000 Gals.
Erected at Hadley, Mass., in 1911

SUPERIOR TANKS

T I P P E T T & W O O D



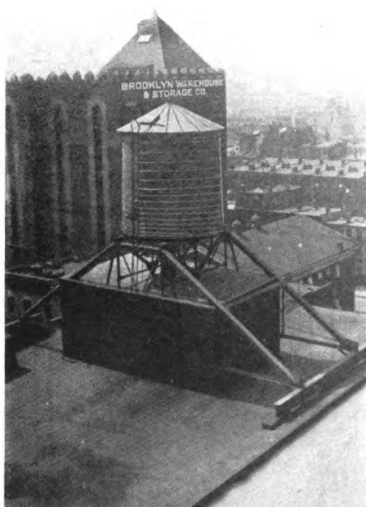
STAND-PIPE FOR TOWN OF NEW ROCHELLE
Diam. 25 Ft., Height 140 Ft., Capacity 514,080 Gals.
Erected at New Rochelle, N. Y., in 1892

SUPERIOR TANKS

T I P P E T T & W O O D



12,000 GAL. GRAVITY TANK AND 9,000 GALLON PRESSURE TANK
Erected for Estate of Andrew Alexander, in New York, N. Y.



20,000 GAL. GRAVITY TANK
AND TWO 7,500 GALLON
PRESSURE TANKS
Erected for Abraham and Strauss
in Brooklyn, N. Y.



WATER TOWER FOR
NASSAU COUNTRY CLUB
Capacity 45,000 Gals., Height 60
Ft. to Bottom of Tank
Erected at Glen Cove, L. I., in
1911

SUPERIOR TANKS

Fire Protection



IN ORDER to reduce the fire insurance rate, and reduce the risk of the prolonged inconvenience and accumulating expenses resulting from a fire, it has repeatedly been found to be a very profitable investment to install an ever-ready water supply system to protect country estates and city property. There is no method of water protection more reliable than the storage of a sufficient quantity of water closely to the place to be protected and at an elevation which will produce enough pressure to reach the most remote part of the property effectively. The installation of one of our steel water towers will permit a large quantity of water to be ready for action at all times. The cost of this invaluable service is a very small charge for depreciation and maintenance. The life of an all steel tower is that of the modern steel frame building. The cost of maintenance for such a tower amounts to practically the cost of a coat of paint every few years.

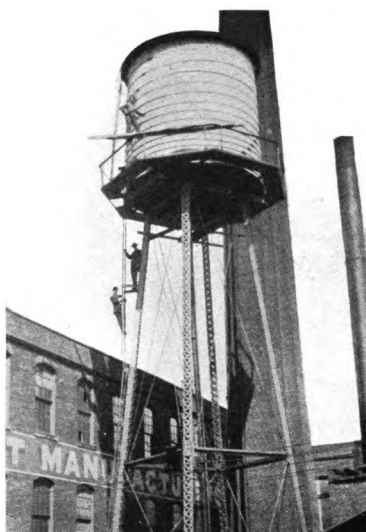
In cities where the conditions limit the use of water towers of sufficient size, pressure tanks are used in which the water is confined under a pressure necessary to effectively operate the sprinklers protecting any part of the property. The standard sizes of these tanks are given on page 35. Pressure tanks are generally installed on the tops of buildings and are enclosed by a housing, also furnished by us.

Many of the gravity tanks we furnish with the pressure tanks are made of wood as shown in accompanying photographs. Where wood tanks are supplied at the request of our customers, only the best grade of lumber is selected and only the best workmanship permitted. These tanks are placed directly on all steel platforms to avoid the rotting of any wood placed between the tank and the steel supports. The structure under the tank is built in accordance with the regulations of the local building department.

T I P P E T T & W O O D



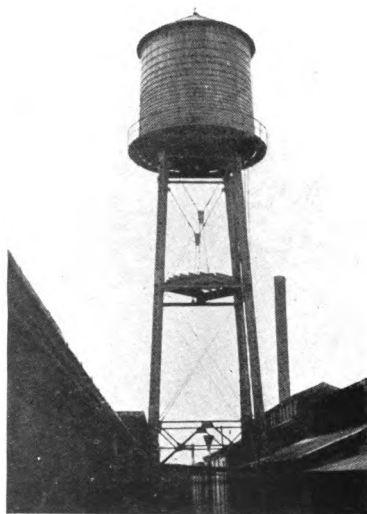
**10,000 GAL. GRAVITY TANK
& 4-7,500 PRESSURE TANKS**
Erected for Varick Realty Co., at
New York, N. Y.



**WATER TOWER FOR H. D.
PARMELEE MFG. CO.**
Capacity 20,000 Gals., Height 75
Ft. to Bottom of Tank
Erected at Newark, N. J., in 1914



**10,000 GAL. GRAVITY TANK
3500 GAL. STAND-PIPE TANK
AND 7,500 GAL. PRESSURE
TANK**
Erected for the Folsom Estate
Agency in New York, N. Y.



**WATER TOWER FOR THE
SAUER MOTOR CO.**
Capacity 50,000 Gals., Height 75
Ft. to Bottom of Tank
Erected at Plainfield, N. J., in 1913

SUPERIOR TANKS

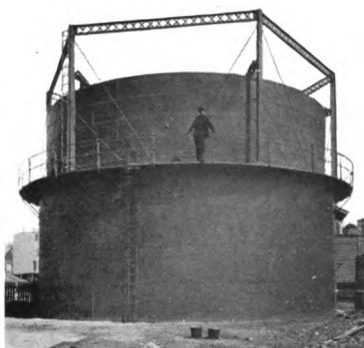
T I P P E T T & W O O D



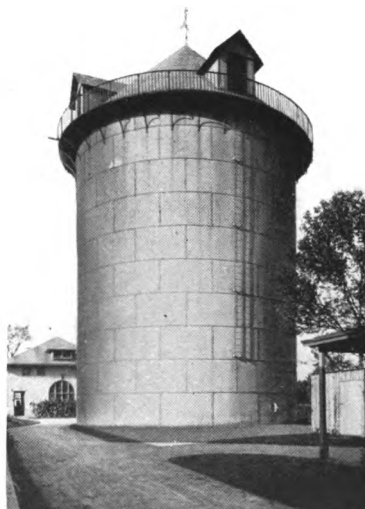
**10,000 GAL. GRAVITY TANK
FOR JULIUS KAYSER & CO.**
Erected at Brooklyn, N. Y.



**TWO 50,000 GAL. TANKS FOR
THE NATIONAL STORAGE CO.**
Erected at Communipaw, N. J.



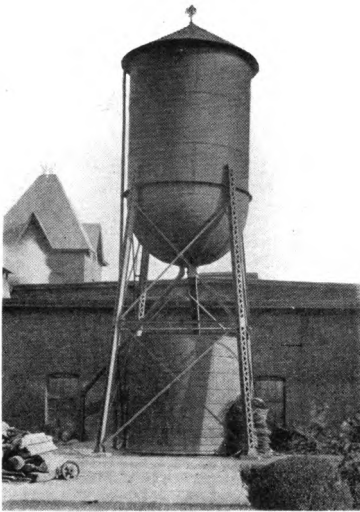
**GAS HOLDER FOR TOWN OF
PHILLIPSBURG**
Erected at Phillipsburg, N. J.



**STAND-PIPE FOR
SPRINGFIELD WATER CO.**
Diam. 40 Ft., Height 50 Ft.
Capacity 470,000 Gals.
Erected at Bryn Mawr, Pa., in 1894

SUPERIOR TANKS

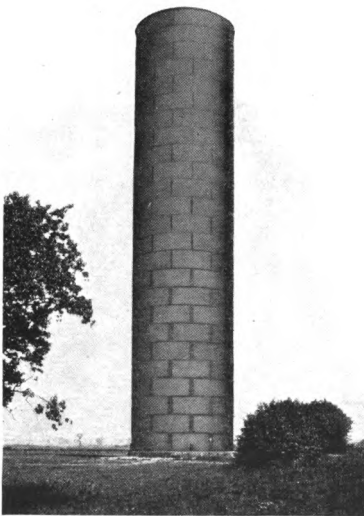
T I P P E T T & W O O D



**WATER TOWER FOR
ANDREW McLEAN**
Capacity 20,000 Gals., Height 16
Ft. to Bottom of Tank
Erected at Garfield, N. J., in 1914



**WATER TOWER FOR BORDEN
CONDENSED MILK CO.**
Capacity 40,000 Gals., Height 30
Ft. to Tank Bottom
Built 1908



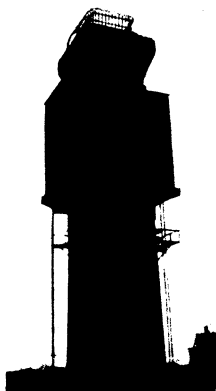
**STAND-PIPE FOR
GARDEN CITY ESTATE**
Diam. 30 Ft., Height 125 Ft.,
Capacity 661,000 Gals.
Erected at Garden City, L. I., in
1907



**WATER TOWER FOR TOWN OF
DENTON**
Capacity 65,000 Gals., Height 75
Ft. to Bottom of Tank
Erected at Denton, Md., in 1911

SUPERIOR TANKS

Special Towers



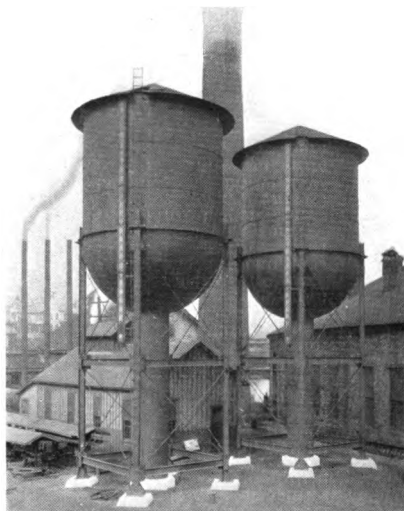
SOME of the tanks and towers shown by our cuts were built in exact accordance with the detail plans and specifications of our customers. They are not recommended for their economy in design as known today, but are shown for the express purpose of informing the public of our ability to build any type of structure to meet the requirements of the supervising engineer, architect or owner. A few photographs are shown to give ideas on the methods of beautifying a tank or tower to harmonize with its surroundings. To show what can be done in this class of architecture, we give a picture of a tower in Japan.

The water tank supported by this structure is entirely hidden from view. One cannot help but note that this is an oriental design and that the designer succeeded in harmonizing its outline with the architecture of the country. Its practical purpose is the same as that of the many towers one sees throughout the country.

A tank or tower can be ornamented so that it will become a pleasing and attractive addition to any country estate or club. The owner very often would be willing to spend a considerable sum to beautify the tank or tower he bought. A moderate extra cost, if allowed us by the purchaser at the time the order is placed, would accomplish big results. A design would be submitted showing just what we could do for the consideration. We have made such additions to several of our standard designs in the past.

We build towers with elliptical, segmental or conical bottoms but recommend them only for special requirements. The greatest economy in the fabrication of these bottoms, considering that we have the forms for all types, lies with the hemispherical type. Furthermore, the fabrication of this type in large quantities also reduces the cost below what it would be to fabricate a few of each at the same time. We can therefore offer more in material and workmanship on a tower at the prevailing price. When a definite quantity of water is desired above a certain level on a large ball bottom tank, we find the greatest economy of design lies in placing the extreme bottom of the ball a few feet below this line and adding the weight of the water below the line into the tower loads.

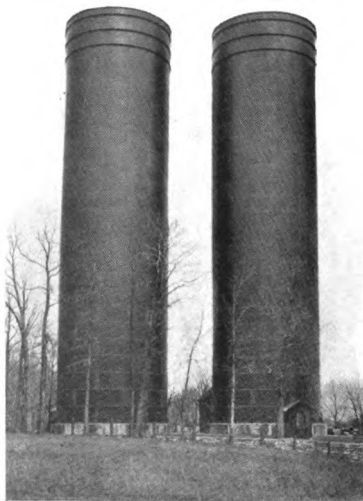
T I P P E T T & W O O D



WATER TOWERS FOR L. V. R. R.
Capacity of each 40,000 Gals., Height 24 Ft. to Bottom of Tank
Erected at Lehigh, Pa. in 1913



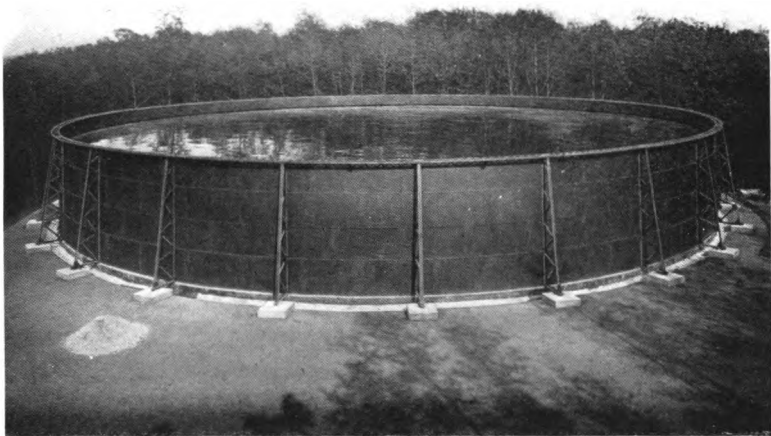
AN ORNAMENTAL WATER TOWER IN JAPAN



**STAND-PIPES FOR THE
SPRINGFIELD
CONSOLIDATED WATER CO.**
Diam. 35 Ft., Height 130 Ft.,
Capacity 935,000 Gals. Each
Erected at Hillside, Pa. in 1899

SUPERIOR TANKS

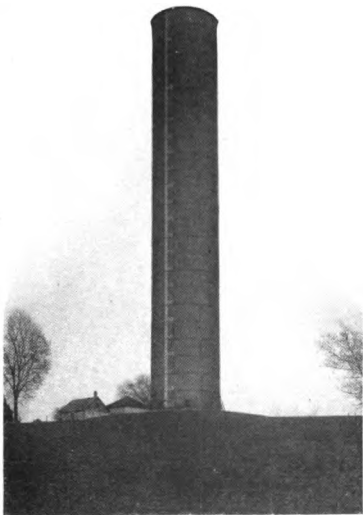
T I P P E T T & W O O D



TANK FOR ROCHESTER AND LAKE ONT. WATER CO.

Diam. 150 Ft., Height 20 Ft., Capacity 2,644,000 Gals.

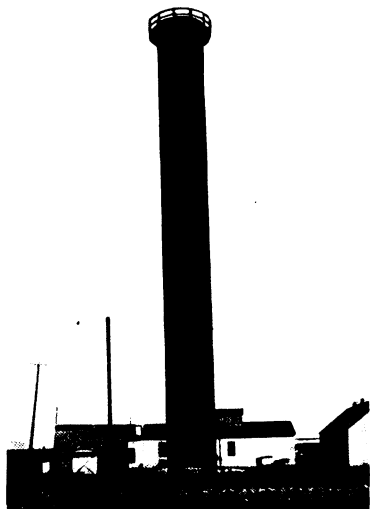
Erected at Rochester, N. Y. in 1904



**STAND-PIPE FOR THE TOWN
OF ORANGE**

**Diam. 20 Ft., Height 120 Ft.,
Capacity 282,000 Gals.**

Erected at Orange, Va. in 1910



**STAND-PIPE FOR DELMAR
WATER CO.**

**Diam. 12 Ft., Height 115 Ft.,
Capacity 97,000 Gals.**

Erected at Delmar, Del. in 1912

SUPERIOR TANKS

T I P P E T T & W O O D

From a Customer

Just as this book was going to press we received the letter, copy of which is given below. A fair idea of the work in question may be had from the photograph on page 8. We are drawing this to your attention because the work has only been completed recently and the letter is typical of the commendations we quite frequently receive. It has been our own experience that to deal with a long-established, highly recommended concern is an item in your contract which may prove to be a very appreciable asset before the work is completed.

CONNECTICUT AGRICULTURAL COLLEGE

Storrs, Conn., May 21, 1915

Messrs. Tippet & Wood,

Phillipsburg, N. J.

Gentlemen :

As you are about to issue a new catalog I would like to say to you and to anyone else interested in your products that our experience with the firm of Tippet & Wood has been entirely satisfactory. We purchased from you a standpipe, 25x80 feet, with cover, pagoda roof, and spiral stairway and your firm fabricated and erected it. You have good facilities for doing this work and competent mechanics and you have done an honest piece of work, exactly according to specifications and I am glad to commend your ability and integrity, and especially the fair spirit in which you have adjusted the few points not covered by the specifications. Before placing our order with you, I visited your plant and several others, and saw some of the structures built by you elsewhere and these visits gave me a favorable impression of your firm. This impression has been strengthened by our experience with you and though you have not suggested it, I feel that it is only fair to say that I have been pleased.

Very truly yours,

CHARLES A. WHEELER,

Engineer.

SUPERIOR TANKS

T I P P E T T & W O O D

Stand-Pipe and Water Towers

BUILT BY

TIPPETT & WOOD

We have built the following structures and will furnish particulars concerning any of them upon request. Dimensions are in feet. The height of water towers is given to the extreme bottom.

LOCATION		STAND-PIPE		WATER TOWER	
		DIAM.	HEIGHT	CAPACITY	HEIGHT
ALABAMA	Montgomery	26	105	100,000	100
	Selma	15	120		
	Opelika	18	70		
	Decatur	20	120		
	Greenville .....	.....	.....
	Troy	15	100		
ARKANSAS	Little Rock	20	185		
CONNECTICUT	Naraton Heights	45,000	75
	Graton	30	65	50,000	75
	Springdale	21	80		
	Danbury .....	.....	.....
	Niantic	15	40		
	Toheneke	12	60	25,000	50
	Guliford	32	85		
	Willimantic	14	17		
DELAWARE	Willimantic .....	.....	.....
	Yorklyn	50,000	100
	Bridgeville	10	100	30,000	75
	Frederica .....	.....	.....
	Middletown	8	100	50,000	22
	Delmar	12	115		
	Dover	25,000	75
	New Castle		
DISTRICT OF COLUMBIA					
	Silver Springs ..	9	80	75,000	40
	Washington .....	.....	.....
FLORIDA	Pensacola	20	135		
	Tallahassee	20	100		
	Miami	20	120		
GEORGIA	Waycross	20	120	150,000	60
	Athens .....	.....	.....
	Milledgeville	20	65		
	Tallapoosa	15	100		
	Gainesville	16	80		
	La Grange	15	90		
	Griffin	15	90	50,000	100
	Dawson .....	.....	.....
	Savannah .....	.....	.....
	Savannah	15,000	75
ILLINOIS	Sterling	20	100		
	Lake Forest	16	80		
INDIANA	Vincennes	22	200		
	Shelbyville	5	125		
	Mt. Vernon	16	30		
	Wabash	25	100		
	Green Castle	22	140		

SUPERIOR TANKS

T I P P E T T & W O O D

LOCATION		STAND-PIPE		WATER TOWER	
		DIAM.	HEIGHT	CAPACITY	HEIGHT
IOWA	Algona	12.6	100		
	Cherokee	18	80		
KANSAS	Fort Scott	14	80		
	Minneapolis	20	85		
KENTUCKY	Paducah	22	175		
	Louisville	5	135		
	Hopkinsville	60	100		
LOUISIANA	Jackson	12	100		
	Shreveport	20	110		
MAINE	Farmington	40	25		
	Winter Harbor ..	8	70		
	Sag Harbor	20	100		
	Stonington	35	50		
	North Haven	25	67		
MARYLAND	Cambridge	14	100		
	Salisbury	12	100		
	Centreville	10	100		
	Aberdeen	12	100		
	Baltimore			75,000	40
	Baltimore	20	100		
	Baltimore			(2) 50,000	22
	Berlin	12	125		
	Denton	23.6	20		
	Baltimore			35,000	22
	Stony Run			50,000	22
	Rising Sun	10	100		
MASSACHUSETTS	Marlboro			300,000	75
	Marion	20	100		
	Medfield			30,000	75
	Sagmore	25	65		
	Sagmore			50,000	25
	South Hadley	35	60		
	Hyannis	25	100		
	South Hadley	35	60		
	Bedford	20	100		
	Siasconset	10	40		
	Lowell			75,000	75
	Acton	35	70		
	Norwood	60	55		
	Salisbury	25	85		
MICHIGAN	Mt. Pleasant			40,000	30
MISSOURI	Rockport	15	30		
	Tarkio	10	50		
	Carrolton	12	100		
	Hannibal			100,000	100
MONTANA	Kalispell	25	50		
NEBRASKA	Wayne	12	75		
NEW HAMPSHIRE	Tilton			20,000	35
	Hampton	25	85		
NEW JERSEY	Rahway	20	24		
	Newfield			35,000	22
	Sea Isle City			35,000	22
	Cape May			35,000	22
	Meadows			50,000	22
	Riverside			10,000	100
	South Amboy	25	80		

SUPERIOR TANKS

T I P P E T T & W O O D

LOCATION	STAND-PIPE		WATER TOWER	
	DIAM.	HEIGHT	CAPACITY	HEIGHT
NEW JERSEY—(Continued)				
Absecon	10	120		
Chrome	50	80		
Gloucester			10,000	80
Princeton			537,000	67
Phillipsburg			30,000	48
Perth Amboy	20	25		
Lawrenceville	20	60		
New Brunswick			100,000	60
Dover			10,000	50
Gloucester			10,000	80
Perth Amboy	20	25		
Crosswicks	9	90		
Trenton			40,000	75
Port Morris	20	60		
Huntsville	16	45		
Garfield			100,000	100
Sewell	10	100		
Garfield			10,000	36
Garfield	30	40		
Carlton Hill	22	28		
Midland Park	40	30		
Lodi			50,000	50
Blairstown	15	85		
Avalon	20	125		
Elmer	12	110		
Camden			60,000	110
Bridgeport			50,000	100
South River	20	100		
Trenton			50,000	50
Pleasantville			10,000	50
Hightstown			50,000	22
Hainesport			8,000	40
Keansburg	15	100		
Rahway			(2) 100,000	
Elberon	18	150		
Garfield			50,000	100
Lawrenceville	6	50		
Highlands	30	30		
Kinkora	14	80		
Lumberton	10	100		
Jersey City			50,000	80
Lakewood	12	50		
Phillipsburg			35,000	22
Meadows			(2) 75,000	22
Wildwood	30	110		
Allentown	12	80		
Phillipsburg			40,000	21
Midland Park	40	30		
Pennsgrove			35,000	22
Port Reading			(4) 20,000	15
Elmer			35,000	22
Haddon Heights	12	100		
Overbrook	60	30		
Hammonton			35,000	22
Pitman	10	80		
Cape May Point	10	100		
Camden	12	70		
Wildwood			50,000	75
Morristown	15	40		
Medford	12	100		
Metuchen	60	35		
Helmetta	10	135		
Spottswood			5,000	100
National Stores			100,000	85
Wilburtha			15,000	45
Passaic			20,000	26.6
Madison			16,000	40
May's Landing	12	120		
Murray Hill	12	75		

SUPERIOR TANKS

T I P P E T T & W O O D

LOCATION	STAND-PIPE		WATER TOWER	
	DIAM.	HEIGHT	CAPACITY	HEIGHT
NEW JERSEY—(Continued)				
Milltown			75,000	100
New Orange Park	20	60		
Pitman	50	70		
Convent Station	18	100		
Trenton	25	80		
Plainfield			10,000	30
Island Heights			50,000	80
Moorestown			100,000	44
Rahway	30	50		
Jersey City	13.6	29(2)		
Jersey City	25	30(2)		
Ridgewood	50	30		
Egg Harbor	10	100		
Metuchen	50	30		
Riverton	30	70		
Chatham	15	70		
Westville			100,000	100
Marlton	10	60		
Tom's River			50,000	75
Tuckertown			50,000	75
Bound Brook	20	50		
Short Hills				
Washington			10,000	60
Sea Isle City	10	100		
Vincentown	12	100		
Glassboro			150,000	150
Morristown	25	80		
Bernardsville	8	22		
Jersey City	20	49		
Bogota	25	37		
Ventnor	18.6	100		
Trenton			100,000	72
Raritan	25	140		
Clayton			100,000	100
Riverside	12	120		
Ridgewood	12	40		
Atlantic City	80	10		
Atlantic City	15	140		
Raritan	10	140		
Princeton			150,000	60
Lawrenceville	10	85		
Stockton	14	100		
Flemington Junc.	5	60		
Woodstown	12	100		
Englewood	20	70		
Keyport	20	125		
Atlantic High'nds.	{ 30	{ 35		
	{ 15	{ 20		
Holliswood	10	30		
Freehold	20	100		
Plainfield	25	140		
Summit	25	50		
Montclair	40	30		
Ridgewood	21	105		
Plainfield	75	25		
Columbus	60	10		
Port Oram	14	100		
Dolphin Station			40,000	50
NEW YORK				
Far Rockaway	20	140		
Rockaway Beach	18	130		
Glen Cove			45,000	60
Hastings-on-H'son	18	70		
Eastwood	40	80		
Peekskill	30	75		
Rockaway Beach	10	120		
Greenport	20	100		
Wateroliet	30	50		
Albany			30,000	75

SUPERIOR TANKS

T I P P E T T & W O O D

LOCATION	STAND-PIPE		WATER TOWER	
	DIAM.	HEIGHT	CAPACITY	HEIGHT
NEW YORK—(Continued)				
Loon Lake.....			30,000	40
Utica.....	5	40		
Albany.....			40,000	100
East Liberty.....			50,000	22
Blasdell.....			50,000	22
Loon Lake.....	12	12		
Norwich.....	24	21.9		
Remsen Neck.....	15	30		
Yorktown Heights.....			50,000	71
Madrid.....	20	80		
Holland Patent.....	20	80		
Hallis.....	50	30		
Richmond Hill.....	40	57		
Jamaica.....	31.3	80		
New York City.....			40,000	25
Youngstown.....	10	100		
Port Jefferson.....	20	50		
Niagara Falls.....			10,000	100
Port Washington.....	40	50		
New York City.....			60,000	50
Haines Falls.....	55	20		
Hastings-on-Hudson.....	18	70		
Haines Falls.....	55	20		
Howe's Cove.....	22	12.6		
Glen Falls.....	48	35		
Hudson.....			50,000	50
Hudson.....			25,000	20
Pine Camp.....			60,000	50
Reeder.....			100,000	23.6
Long Island City.....			60,000	51
Manchester.....			100,000	22
Manchester.....			100,000	16
Oakdale.....			25,000	50
Williamsville.....	12	100		
Poughkeepsie.....	15	50		
Sonyea.....	15	75		
Perry.....	16	75		
Monticello.....	25	60		
Glens Falls.....	18	120		
LeRoy.....	20	100		
Hyde Park.....	15	50		
Tarrytown.....			20,000	50
White Plains.....			30,000	28
Cold Spring.....			40,000	50
Olean.....			100,000	40
Jamesville.....	20	60		
Cold Spring.....			10,000	20
Grand Hotel.....	25	27.6		
Pleasant Plains.....			40,000	75
Rochester.....	150	20		
Roslyn.....	20	60		
Tupper Lake.....	50	50		
Brooklyn.....	(2)14	80		
Roslyn.....			50,000	40
Port Chester.....			30,000	65
Garden City.....	30	125		
Far Rockaway.....	20	100		
Staten Island.....	35	25		
Warsaw.....	5	125		
Sea Cliffe.....	20	120		
Hyde Park.....	20	16		
New Rochelle.....	25	140		
Walden.....	16	50		
Oakdale.....	8	60		
Amityville.....	20	125		
Palmyra.....	20	50		
Skaneateles.....	18	40		
Hyde Park.....	25	12		
Matteawan.....	15	15		

SUPERIOR TANKS

T I P P E T T & W O O D

LOCATION	STAND-PIPE		WATER TOWER	
	DIAM.	HEIGHT	CAPACITY	HEIGHT
NEW YORK — (Continued)				
Ardley	30	30		
Hyde Park	20	50		
New Rochelle	8	50		
Oakdale	8	60		
Rome	15	72		
Buffalo	20	60		
Rockville Centre	20	100		
Antwerp	20	50		
Seneca Falls	25	80		
NORTH CAROLINA				
Charlotte	22	85		
Henderson	15	130		
Greenville	15	110		
Goldsboro	18	110		
Hamlet			150,000	75
Tarboro			100,000	100
SOUTH CAROLINA				
Sumpter	20	70		
Anderson	18	110		
Orangeburg	8	60		
Walterboro			30,000	75
NORTH DAKOTA				
Watertown	20	90		
OHIO				
Belleville	15	120		
Massillon	25	150		
Defiance	20	140		
Marion	25	90		
Ashtabula	20	100		
Salem	25	85		
Circleville	22	150		
Kent	14	100		
Montpelier	12	110		
Columbus	21	42		
Warren	22	140		
OREGON				
East Portland	25	100		
PENNSYLVANIA				
Tambline			35,000	22
N. Penn. Junction			50,000	22
Trout Run			35,000	22
Larabee			75,000	22
Miller's Farm			75,000	22
Spartansburg			100,000	22
Phoenixville			50,000	24
Allentown			75,000	75
Allentown	22	10		
Manheim			25,000	75
New Hope			30,000	50
Chestnut Hill, Phil			60,000	6
Bethlehem	70	50		
Frankford, Phila			50,000	72
Allentown	15	90		
Redington			25,000	10
Darkwater			50,000	12
Marcus Hook			100,000	60
Hamburg			85,000	54
Windber			100,000	12
Pitcairn	(2) 20	15		
Easton	50	78		
Philadelphia			30,000	25
Marcus Hook			100,000	60
Summit Hill	40	35		
Swarthmore	30	39		
Wilmore	20	25		

SUPERIOR TANKS

T I P P E T T & W O O D

LOCATION	STAND-PIPE		WATER TOWER	
	DIAM.	HEIGHT	CAPACITY	HEIGHT
PENNSYLVANIA — (Continued)				
Akron	12	100		
Willow Grove	20	35		
Frankford, Phila.			40,000	75
D'ware Water Gap	20	20		
Chestnut Hill, Phil.	(2) 35	80		
Phoenixville			50,000	24
Bangor	50	25		
Birdsboro			50,000	100
Sunbury			35,000	22
Easton			3,000	35
Devault			35,000	22
Ridgeway			35,000	22
Colza			35,000	22
Marysville			50,000	22
Glen Rock			50,000	22
Shamrock			50,000	22
Bond			35,000	22
Gracetown			35,000	22
Lovell			35,000	22
Garland			35,000	22
Irvinton				
Williamsport	30	20		
Glenolden	40	40		
Kittaning Point	35	30		
Ben's Branch	(2) 30	20		
Northampton			100,000	100
Chestnut Hill, Phil.			25,000	50
Palmerton			100,000	100
Plymouth			30,000	38
Philadelphia			35,000	22
Philadelphia			95,000	55
Northumberland			(2) 50,000	24
Northumberland			(2) 50,000	51
Philadelphia			50,000	24
Auburn			35,000	22
Hinkle			70,000	20
Laceyville			100,000	20
Tunkhannock			100,000	26
Glendon			40,000	12
Swarthmore			100,000	100
Wilkes-Barre			40,000	85
Portland	16	45		
Hillside	(2) 35	130		
Janey Station	20	15		
Bryn Mawr	40	50		
Ardmore	40	50		
Oak Lane	30	75		
Sweedland Furn'e.	12	70		
Easton	6	50		
Allentown	7	76		
Frankford, Phila.	12	100		
Allentown	50	150		
Media	30	50		
Pottsville	40	30		
West Grove	20	30		
South Allentown	10	50		
Bethlehem			50,000	75
East Greenville	15	100		
Allentown	10	100		
Bryn Mawr	50	50		
Easton	25	120		
Freemansburg			40,000	59
Pittsburgh			75,000	25
Sharpsville			20,000	22
Northampton			40,000	38
Enolia	25	40		
Frankford, Phila.			75,000	110
Telford	16	40		

SUPERIOR TANKS

T I P P E T T & W O O D

LOCATION		STAND-PIPE		WATER TOWER	
		DIAM.	HEIGHT	CAPACITY	HEIGHT
PORTO RICO	San Juan .....	.....	.....	50,000	50
TENNESSEE	Vicksburg	12	140		
	Lookout Mount'n.	20	70		
TEXAS	Hallettsville	24	100		
	Terrell	12	85		
VIRGINIA	Berkeley	25	100		
	Smithfield .....	.....	.....	50,000	75
	Hampton	18	125		
	Orange	20	120		
	New Church .....	.....	.....	50,000	22
	Cape Charles .....	.....	.....	(2) 50,000	40
	Covington	30	30	(3 Tanks)	
WEST VIRGINIA	Charlestown	15	50		
WISCONSIN	Hurley	25	90		
	Racine	30	50		
	Ironwood	30	50		
	Jeansville	25	85		
	Stevens Point	20	120		
	Marinette	40	25		
WASHINGTON	Tacoma	20	140		
CUBA	.....	.....	.....	40,000	48
NEW MEXICO	Clayton .....	.....	.....	75,000	45
FOREIGN	Curaco, D. Guinea (S. America)	20	40		
	Export .....	.....	.....	10,000	50
	Export .....	.....	.....	8,000	30
	Export .....	.....	.....	30,000	51.6
	Export, Fox Bros.	30	20		
	Export, Fox Bros. ....	.....	.....	50,000	19

T I P P E T T & W O O D

Equipments for Fire Protection

These have been erected in the vicinity of New York City within a period of two years. We offer them as references and recommend their inspection to show our ability to cope with very peculiar and difficult problems in placing tanks over the roofs of buildings. All our equipments are accepted and approved by Insurance Companies, Fire Underwriters' Exchanges, and the local building departments.

EQUIPMENT.	LOCATION.	OWNER.
50,000 Wooden Tank 75 ft. Tower	Plainfield, N. J.	Sauer Motor Company
12,000 Gravity Tank 9,000 Pressure Tank	163-171 Carlton Ave., Brooklyn, New York	W. W. De Bevoise
30,000 Steel Tank	West New York	Paul G. Mehlin & Sons
30,000 Gravity Tank 3-7,500 Pressure Tanks	1926 Broadway	Halstead H. Frost, Jr.
10,000 Gravity Tank 7,500 Pressure Tank	115-117 W. 27th St.	Gross, Engel & Co.
50,000 Steel Tank	Adams and Plymouth Sts., Brooklyn, New York	E. W. Bliss Company
10,000 Gravity Tank	88-90 Walker Street	Rosenstock & Hellinger
5,000 Gravity Tank 5,000 Pressure Tank	21 Washington Place	Mrs. Emma A. Bradford
10,000 Gravity Tank 7,500 Pressure Tank	104-108 W. 27th St.	I. Unterberg
10,000 Gravity Tank 7,500 Pressure Tank 3,500 Stand-pipe Tank	35 East 12th Street	Folsom Estate Agency
10,000 Gravity Tank 7,500 Pressure Tank	Leggett & Whitlock Sts.	Earnest Gabler & Bros.
10,000 Gravity Tank 7,500 Pressure Tank	18 East 16th Street	Simon H. Kugel
10,000 Gravity Tank 7,500 Pressure Tank	737 Broadway	H. L. R. Edgar
2-9,000 Pressure Tanks	Hoboken, N. J.	Hoboken Land and Im- provement Company
25,000 Gravity Tank	1248 Atlantic Ave., Brooklyn, New York	Metropolitan Engineering Company
12,000 Gravity Tank 9,000 Pressure Tank	Elizabeth, N. J.	Goerke-Kirch Company
10,000 Gravity Tank 9,000 Pressure Tank	1072 Atlantic Ave., Brooklyn, New York	Otto Wissner
10,000 Gravity Tank 7,500 Pressure Tank	28-32 West 27th St.	Sperry Realty Company
10,000 Gravity Tank	9 West 20th Street	E. P. Slevin
75,000 Tank and Tower	Hawthorne, N. J.	
5,000 Gravity Tank 5,000 Pressure Tank	9 East 4th Street	Mary M. Mills
40,000 Gravity Tank	Woodhaven, L. I.	Speer & Company

SUPERIOR TANKS

T I P P E T T & W O O D

EQUIPMENT.	LOCATION.	OWNER.
10,000 Gravity Tank 7,500 Pressure Tank	29-33 E. 19th St.	Kendall Estate
40,000 Gravity Tank	232 Taaffe Place, Brook- lyn, New York	Julius Kayser & Co.
12,000 Gravity Tank 9,000 Pressure Tank	Broadway and 22nd St.	Stein-Doblin Co.
10,000 Gravity Tank 7,500 Pressure Tank	273 Van Sinderen Ave., Brooklyn, New York	Levin-Kronenberg & Co.
50,000 Gravity Tank	Long Island City, N. J.	General Vehicle Co.
2-7,500 Pressure Tanks	409 Pearl Street	Scott & Boone
40,000 Gravity Tank 4-7,500 Pressure Tanks	Washington and West Sts.	Varick Realty Co.
10,000 Gravity Tank 7,500 Pressure Tank	112-116 Bleecker St.	Collegiate Baptist Church
15,000 Gravity Tank 2-6,000 Pressure Tanks	Fourth Street S. E. C. Lafayette St.	Chas. Lane
12,000 Gravity Tank 9,000 Pressure Tank	306 Sixth Avenue	Est. Andrew Alexander
12,000 Gravity Tank 9,000 Pressure Tank	39-47 W. 19th Street	Title Guarantee and Trust Company
10,000 Gravity Tank 7,500 Pressure Tank	74-76 Fifth Avenue	Title Guarantee and Trust Company
20,000 Gravity Tank 2-7,500 Pressure Tanks	Brooklyn, New York Flatbush and Nevins Sts.	Abraham & Straus
20,000 Gravity Tank	647 Lexington Avenue, Brooklyn, New York	Geo. Baker & Sons
4-20,000 Steel Tanks	Brooklyn, New York	Robert Gair Company
4-6,000 Pressure Tanks	216 William Street	Met. Realty Company
20,000 Tank and 75 ft. Tower	Newark, New Jersey	H. D. Parmelee Mfg. Co.
50,000 Steel Tank and 75 ft. Tower	Whitestone, L. I.	Jacob Sulzbach
10,000 Gravity Tank 7,500 Pressure Tank	44 East 14th Street	Astor Estate
10,000 Gravity Tank 7,500 Pressure Tank	37-39 W. 28th St.	Rexton Realty Co.
2-7,500 Pressure Tanks	220-230 W. 19th St.	E. S. Willard & Co.
5,000 Stand-pipe Tank	90 Prince Street	Frederick Southhack & Alwyn Ball, Jr.
2-5,000 Gravity Tanks 5,000 Pressure Tank	137 Fifth Avenue	Eugene Higgins
2-7,500 Pressure Tanks	65-67 Bleecker St.	Chas. T. Wills
10,000 Gravity Tank 7,500 Pressure Tank	28-30 W. 25th St.	Henry P. Gardner
1-25,000 Gravity Tank 2-9,000 Pressure Tanks	27-33 W. 23rd St.	Caroline H. Johnston
10,000 Gravity Tank	27-31 Bleecker St.	Conrad Stein
10,000 Gravity Tank 7,500 Pressure Tank	126-130 W. 22nd St.	Hy. R. Drowne
12,000 Gravity Tank 9,000 Pressure Tank	35-37 W. 3rd Street	Frank E. Lonos and Mary L. Richards
3,500 Stand-pipe Tank	75-77 Spring Street	Com. Chas. A. Gould

T I P P E T T & W O O D

EQUIPMENT.	LOCATION.	OWNER.
10,000 Gravity Tank 7,500 Pressure Tank	46-54 Irving Street. Brooklyn, New York	Hills Bros. Company
10,000 Gravity Tank	Pittsburg, Pa.	Bedell Company
10,000 Gravity Tank 7,500 Pressure Tank	33-37 Bleecker St.	Equitable Life Insurance Society
10,000 Gravity Tank	153-157 W. 23rd St.	County Holding Co. (2)
25,000 Gravity Tank on a 25 ft. Tower	Fort Lee, N. J.	Motion Picture Prop. Company
20,000 Gravity Tank on a 25 ft. Tower	14th and Hancock Sts., Long Island City, L. I.	C. A. Willey Company
2-17,500 Steel Tanks	141-155 E. 25th St.	N. Y. Railways Company
10,000 Gravity Tank	121-123 Mercer St.	Chas. Broadway Rouss
4-7,500 Pressure Tanks	111 Fifth Avenue	Constable Estate
2-50,000 Steel Tanks	Communipaw, N. J.	National Storage Co.
10,000 Gravity Tank 7,500 Pressure Tank	500-508 E. 134th St.	Staib-Abendschein Co.
10,000 Gravity Tank 7,500 Pressure Tank	19-21 W. 36th Street	Wm. M. Sperry
12,000 Gravity Tank 9,000 Pressure Tank	112-116 W. 18th St.	Edw. Jansen
10,000 Gravity Tank 7,500 Pressure Tank	75-77 Spring Street	Com. Chas. A. Gould
10,000 Gravity Tank 7,500 Pressure Tank	127-131 W. 25th St.	Hudson Mortgage Co.
10,000 Gravity Tank 7,500 Pressure Tank	146-150 W. 25th St.	Isabel A. Cohen
2-7,500 Pressure Tanks	20-22 Nassau Street	Mechanics & Metals National Bank
10,000 Gravity Tank 7,500 Pressure Tank	782-786 Wythe Avenue, Brooklyn, New York	S. J. Stanfield
10,000 Gravity Tank 7,500 Pressure Tank	15-17 E. 16th Street	George Holding Co.
10,000 Gravity Tank 7,500 Pressure Tank	32-34 W. 20th Street	David Price
40,000 Tank	Ampere, N. J.	Ward Baking Company
30,000 Tank on a 60 ft. Tower	Belleville, N. J.	Hardman Tire and Rub- ber Company
10,000 Gravity Tank 7,500 Pressure Tank	134-140 W. 26th St.	Eagle Improvement Co.
10,000 Gravity Tank 7,500 Pressure Tank	225-227 E. 36th St.	Mrs. Elsa A. Beckel
10,000 Gravity Tank 7,500 Pressure Tank	142 Fifth Avenue	Est. of H. O. Havemeyer
15,000 Gravity Tank 2-6,000 Pressure Tanks	Hudson and Duane Sts.	L. Schepp Company

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