Summary of Unit Costs—(Continued).

Size of pipe.	Materials			
	Pipe.	Lead.	Yarn.	Drayage.
Inches.	E	F	G	H
4	.00966	.0050	.000308	.00966
6	.01512	.0075	.000391	.01512
8	.02104	.0100	.000466	.02104
10	.02796	.0133	.000541	.02796
12	.03691	.0183	.000625	.03691
16	.05630	.0300	.000883	.05630
20	.07777	.0416	.001116	.07777
24	.10320	.0516	.001333	.10320
30	.14204	.0625	.001666	.14204

Explanation of Summary Table, C.I. B. & S. Pipe

Column A—Cost per foot for trenching and backfilling a trench 1 ft. deep at a labor cost of .01 per hour. For local costs per foot, multiply by depth of trench in feet and by labor wage scale per hour.

Column B—Cost per foot for trenching and backfilling a trench 1 ft. deep at a labor cost of .01 per hour. For local costs per foot, multiply by local wage scale per hour. The sum of the local costs of columns A and B equals the total cost of trenching and backfilling, of which two-thirds may be charged to trenching and one-third to backfilling.

Column C—Cost per foot for laying pipe at a .01 per hour wage scale. For local cost per foot, multiply by local wage scale per hour for pipe layers.

Column D—Cost per foot for jointing pipe at a .01 per hour wage scale. For local cost per foot, multiply by local wage scale per hour for caulkers.

Column E—Cost per foot of pipe at $1 per ton f.o.b. local city. For local cost per foot multiply by local cost per ton.

Column F—Cost per foot for lead at .01 per pound. For local cost per foot multiply by local cost per pound of lead.

Column G—Cost per foot for yarn at .01 per pound. For local cost per foot multiply by local cost per pound of yarn.

Column H—Drayage cost per foot at a rate of $1 per ton mile. For local cost per foot multiply by local drayage rate per ton-mile.

Storage and handling cost assumed to be 4 per cent. of total material cost regardless of locality. Supervision, engineering and contingencies assumed to be 10 per cent. of total cost regardless of locality.

Standard Screw Steel Pipe

Trenching and Backfilling.

Size of pipe—in.	Width of trench—in.	Cu. ft. per foot of trench.	At .01 per man-hour—Cost of excavating and backfilling. Per cu. ft. of excavation.	Unit cost per foot depth.
1¼	18	1.50	.00111	.00166
1½	18	1.50	.00111	.00166
2	18	1.50	.00111	.00166
3	18	1.50	.00111	.00166
4	20	1.66	.00111	.00184
6	22	1.83	.00111	.00203
8	24	2.00	.00111	.00222

To find local cost per foot for trenching and backfilling, multiply unit cost per foot by local wage per man-hour.

Jointing.

Size of pipe.	Number of men.	Joints per hr. per gang.	Ft. of pipe per hr. per gang.	Unit cost per ft. at .01 per man-hour.
1¼	2	9	180	.000111
1½	2	8	160	.000125
2	2	6	120	.000166
3	2	3	80	.000250
4	2	3	60	.000333
6	2	2	40	.000500
8	3	2	40	.000750

NOTE.—Jointing pipe covers the work of entering and screwing up pipe in the trench. The number of joints per man-hour varies as the diameter of the pipe. To find local cost per foot, multiply cost per foot by local wage scale per hour.

Laying Pipe.

Size of pipe—in.	No. of men.	Weight of pipe per ft. in lbs.	Weight of pipe per man-hour.	Feet of pipe per man-hour.	Feet of pipe laid per hour by gang.	Unit cost per ft. at .01 per man-hour.
1¼	3	2.28	237.5	104.2	312.5	.000096
1½	3	2.73	236.4	86.6	260.0	.000116
2	3	3.36	238.2	65.0	195.0	.000154
3	3	7.62	278.9	36.6	110.0	.000273
4	3	10.89	289.6	26.6	80.0	.000376
6	3	19.19	303.2	15.8	47.5	.000633
8	5	28.81	302.5	10.5	52.5	.000952

NOTE.—Laying pipe covers reversing of couplings and handling of the pipe from the curb line to the trench and lowering into same. The weight of pipe per man-hour is not constant due to the reversing of a variable number of couplings per unit weight of different size pipes. To find local cost per foot multiply unit cost by local pipemen hourly wage.

Summary of Unit Costs.

Size of pipe.	Labor			Material	
	Trenching and backfilling.	Laying.	Jointing.	Pipe.	Drayage.
Inches.	A	B	C	D	E
1¼	.00166	.000096	.000111	.01	.00114
1½	.00166	.000116	.000125	.01	.00136
2	.00166	.000154	.000166	.01	.00184
3	.00166	.000273	.000250	.01	.00381
4	.00184	.000376	.000333	.01	.00544
6	.00203	.000633	.000500	.01	.00959
8	.00222	.000952	.000750	.01	.01440

Column A—Cost per foot for trenching and backfilling a trench 1 ft. deep at a labor cost of .01 per hour. For local costs per foot, multiply by depth of trench in feet and by labor wage rate per hour.

Column B—Cost per foot for laying pipe at a .01 per hour wage scale. For local costs per foot multiply by local wage rate in cents per hour.

Column C—Cost per foot for jointing pipe at a .01 per hour wage scale. For local cost per foot multiply by local wage scale in cents per hour.

Column D—Cost per foot of pipe at .01. Substitute local cost per foot.

Column E—Drayage cost per foot at $1 per ton-mile. For local cost per foot multiply by the local drayage rate per ton-mile.

Storage and handling cost assumed to be 4 per cent. of material cost, regardless of locality. Supervision, engineering, contingencies, assumed to be 10 per cent. of total cost regardless of locality.

A new reinforced concrete coaling station has recently been completed on the Lehigh Valley, at Manchester, N.Y., which is notable not only because of the volume of storage space and capacity of the receiving and discharge facilities, but also because of a number of innovations incorporated in its construction. Duplicate receiving and hoisting facilities, an arrangement for mixing the various kinds of coal as received, and an unusual compactness and convenience in the installation, are among the special features that deserve notice. The reinforced concrete storage bin is 70 ft. by 52 ft., and is elevated on concrete columns so as to serve locomotives standing on six sets of lines, four of which pass under the structure while one passes along each end. The elevating towers are separated from the bin structure by a distance of 39 ft., the coal being transferred from the tower to the bin by means of two bridges spanning the intervening distance and forming a part of the superstructure covering the top of the bin. The elevating equipment is in duplicate. Each elevating tower receives coal from a separate track hopper 20 ft. long, from which it is fed automatically into the elevating bucket by means of a measuring coal feeder of 2½ tons capacity, this feeder being actuated by the ascent and descent of the elevating bucket. The bucket in turn is raised and lowered by an independent electric hoist, having a capacity of 75 tons per hour.