LIST OF BRICK CHIMNEYS.

1. At Knoxville, Tenn. Illustrated in *Engineering News*, November 2, 1893.

Flue, 6 feet diameter; 120 feet high; double walls.

TABLE No. 25.

EXTERIOR WALL.		INTERIOR CORE.	
Height, feet.	Thickness, inches.	Height, feet.	Thickness, inches.
20	21	35	13½
30	17	35	8½
30	13	29	4
40	8½	21	0

Exterior diameter at base is 15 feet 6 inches; batter, $\frac{7}{16}$ inch in 12 inches from the bottom to 8 feet from the top, then straight. Space between walls, 16 inches at bottom, diminishing to nothing at the top of core wall.

The interior is of red brick, except a lining of fire-brick for 20 feet up from the bottom.

2. Montreal (Can.) Street Railway Company, William Street Power House.

This chimney (1894) is the highest in Montreal, 190 feet high above the fire-grate, and with a flue 9 feet diameter, gives a draft of 1⅛ inches of water.

The chimney is built with double walls, and the square pedestal base is 18 feet square outside.

Three thousand horse-power of Lancashire double-flue boilers are connected to it.

3. Mechernich Lead Mining Company. Flue, 9 feet 10 inches; height, 440 feet 6 inches; foundation of dressed stone, 36 feet square by 11 feet 6 inches high.

The base, a cube of 32 feet 9 inches, and the octagonal plinth of the shaft are both built of annular kiln bricks.

The circular shaft is formed of radial bricks, it is 24 feet 6 inches outside diameter, and 11 feet 6 diameter inside at base; at the top it is 11 feet 6 inches outside and 9 feet 10 inches inside diameter.

ILLUS. No. 40.

OLD COPPER WORKS CHIMNEY AT BELLEVILLE, N. J.

4. New Sessions Foundry, Bristol, Conn.

Flue, 42 inches diameter by 110 feet high; circular, 6 feet diameter at top, 10 feet diameter at base, set on an 11-foot square bed at ground. Three 150 horse-power Heine boilers connected to it.

5. Passaic Print Works, Passaic, N. J.

Flue, 9 feet diameter by 200 feet high; cost, $15,000; built by Flynt Building and Construction Company.

This chimney has three batters in the height.

Eighteen 6 feet diameter by 18 feet long horizontal tubular boilers are connected to it, with a total of 760 square feet of grate.

6. Fall River Iron Company.

Flue, 11 feet diameter by 350 feet high; diameter outside at base, 30 feet; diameter outside at top, 21 feet.

Foundation of granite, 55 feet by 30 feet by 16 feet deep.

Required 1,700,000 brick, 2,000 tons stone, 2,000 barrels mortar, 1,000 loads of sand.

Estimated cost, $40,000.

7. Dundee Chemical Works, Passaic, N. J.

Circular, 175 feet high, 14 feet square at bottom; laid up in cement.

Used to get rid of gases from chemical reaction at a high altitude; cost $7,000.

Since it was built it showed several large cracks from the top one-third the way down and has been rebuilt; iron bands being placed around the outside to retain the brick.

8. Merrimack Manufacturing Company, Lowell, Mass.

Flue, 12 feet diameter; 282 feet high; round pedestal, cost $18,500; load on foundation 4.8 tons per square foot.

The foundation is 30 feet in diameter of dressed granite blocks laid in clear Portland cement; core was laid in lime and sand mortar; the outside shell was laid in lime, cement, and sand.

9. Municipal Lighting Plant, Frankfort-on-Main, Germany.
Flue, 7 feet diameter; 164 feet high.
Supplies draft for 12 internally fired boilers with single furnace, and four Galloway tubes.
Boilers, 82 inches diameter by 28.8 feet long; 925 feet of heating surface each.

10. Port Dundee, Glasgow, Scotland.
488 feet high. Cost, $40,000.

11. Townsend, Glasgow, Scotland.
454 feet high.

12. Tennant & Company, Glasgow, Scotland.
434 feet 6 inches high.

13. Crossley's, Halifax, England.
381 feet high. Octagonal, stone.

14. Dobson & Barlow, Bolton, England.
13 feet 2 inches diameter; 367½ feet high.

15. Brooks's Fire-clay Works, Huddersfield, England.
306 feet high. Circular, brick, and stone.

16. Mitchel Brothers, Bradford, England.
300 feet high. Octagonal, stone.

17. Edinburgh Gas Light Company, Edinburgh, Scotland.
Flue, 12 feet diameter; 264 feet high. Cost, $25,000.
Circular, stone, square pedestal.
Load on bottom or soil is 2.5 tons per square foot.

18. West Cumberland Hematite Iron Works, England.
251 feet high. Circular, stone.

19. Amoskeag Mills, Manchester, N. H.
Flue, 10 feet diameter; 250 feet high. Circular, brick.

20. Washington Mills, Lawrence, Mass.
Flue, 10 feet diameter; 250 feet high. Circular, brick.

21. Tremont and Suffolk Mills, Lowell, Mass.
(1) Flue, 10 feet diameter; 250 feet high. Circular, brick.

22. Tremont and Suffolk Mills, Lowell, Mass.
(2) Flue, rectangular, oblong, brick. Height, 238 feet.

23. Lower Pacific Mills, Lawrence, Mass.
Flue, 8 feet diameter; 214 feet high. Circular, brick.

24. Edison Electric Illuminating Company, Paterson, N. J.
(1) Old chimney; 200 feet high. Octagonal.

25. Edison Electric Illuminating Company, Paterson, N. J.
(2) New chimney; 225 feet high. Circular.

26. Newland's Mills, Bradford, England.
Flue, 9 feet diameter; 260 feet high.
Load on bottom on soil, 4.5 tons per square foot.

27. McCormack's Reaper Works.
Flue, 6 feet 8 inches diameter; 160 feet high.
Load on soil, a dry hard clay, 1.8 tons per square foot.

28. Queen Lane Pumping Station, Philadelphia, Pa.
Flue, 12 feet diameter; 200 feet high.
Foundation, 37 feet square by 24 feet deep.

29. Tweedvale Manufacturing Company.
Flue, 4 feet diameter; 125 feet high.
Foundation, 19 feet square by 9 feet deep.

30. Grosvenordale Company, North Grosvenordale, Conn.
Flue, 5 feet diameter; 150 feet high. *Power*, December, 1897.

31. New Chester Water Company.
Flue, octagonal; area, 2,430 square inches; height, 105 feet. Lined with fire-brick 20 feet up above the opening for breeching.
Furnishes draft to five 60 inch diameter by 16 feet horizontal tubular boilers.—*Engineering Record*, vol. xxv.

32. Chicago City Railway Company.
14 feet diameter of flue by 208 feet high. Top round; base square.
Foundation, 50 feet square; 16 feet deep.
For twenty-four 78 inches by 20 feet horizontal tubular boilers. John Mohr & Sons.—*Power and Transmission*, May, 1897.

33. Akron, Ohio, Street Railway and Illuminating Company.
Octagon exterior, brick, round flue; 72 inches diameter; 130 feet high.

34. Brisbane, Queensland, Australia, Electric Power Plant.
Brick chimney, 7 feet diameter of flue by 15 feet high, for 2,400 horse-power B. and W. boilers; 1,200 of which is now in.