

Practical Memoranda.

Table

Of the Dimensions and Weight of Coppers, from 1 to 208 gallons.

The Dimensions taken from lag to brim.

Inches lag to brim.	Gallons.	Weight in lbs.	Inches lag to brim.	Gallons.	Weight in lbs.
9½	1	1½	27	22	33
12½	2	3	27½	23	34½
14	3	4½	27½	24	36
15½	4	6	27½	25	37½
16½	5	7½	28	26	39
17½	6	9	28½	27	40½
18½	7	10½	29	28	42
19½	8	12	29½	29	43½
20½	9	13½	30	30	45
21	10	15	32	36	54
21½	11	16½	34	43	64½
22	12	18	35	48	72
22½	13	19½	36	53	79½
23½	14	21	37	58	87
24	15	22½	38	63	94½
24½	16	24	39	67	100½
25	17	25½	40	71	106½
25½	18	27	45	104	156
26	19	28½	50	146	219
26½	20	30	55	208	312
20½	21	31½			

Weight of Cast-Iron Plates, per superficial foot.

From one-eighth of an inch to one inch thick.

¼ inch lbs. oz.	½ inch lbs. oz.	¾ inch lbs. oz.	1 inch lbs. oz.	1½ inch lbs. oz.	2 inch lbs. oz.	2½ inch lbs. oz.	3 inch lbs. oz.	1 inch lbs. oz.
4 13¾	9 10¾	14 8	19 6¾	24 2¾	29 0	33 13¾	38 10¾	

Force in Pile-Driving.

In a sandy soil the greatest force of a pile-driver will not drive a pile over fifteen feet.

Statistical Information.

Extension of Flax Culture in Ireland.

By the courtesy of the Registrar-General we are enabled to give the official and reliable statistics of the flax crop in Ireland for the present year. In the province of Ulster, the centre of the linen manufacture, the increase of the land under flax this year is 70,907 acres, one-third more than the average of 1863. In Munster the increase is 5,438 acres, and the quantity sown is nearly four times as great as that of 1863. The increase in Leinster is 5,285 acres, and that of Connaught 6,213 acres. The total increase for 1864 is 87,483, and the extent of the land actually under flax is 301,942 acres.—*Dublin Post*.

The Kingdom of Italy.

The Italian Government has just published the result of a census taken since the annexations which constituted it as it is at present. It contains

some curious facts of which the accuracy cannot be doubted. The Kingdom of Italy contains a population of 21,777,334 souls. It is, consequently, the fifth Power in its inhabitants; Europe as regards superior to Spain, of which the territory is twice as extensive, and to Prussia, of which the area is likewise greater. Were the unity of Italy accomplished its population would amount to 27,000,000. The average population of a commune in Italy is 2,821 inhabitants, while the average in France is only 978 inhabitants. There are nine communes in 300 square kilometres. In France, on the contrary, there are 18 in a similar space. The population is most crowded in the south of the island of Sardinia; it is least numerous in the Marches and in the Æmilia. Italy contains on an average 84 inhabitants to the square kilometre—a figure higher than that of France or Prussia, but lower than that of England, Holland, or Belgium. Lombardy and Sicily are the provinces in which the population has increased most rapidly of late years. Sardinia and the Neapolitan province come next. The increase of population has been much slower in Piedmont. The wars of 1849 and 1859 have tended to that consequence.

Value of Pennsylvania Petroleum.

The petroleum produced in the State of Pennsylvania was sold at the well for \$56,000,000 during the last twelve months, and the iron and coal of Pennsylvania only produced \$51,000,000. In Philadelphia, the daily sales of petroleum stocks at the regular stock exchange board are over \$200,000. The number of petroleum companies organized is about 150, and in New York about 80.

Miscellaneous.

NINETEENTH ANNUAL EXHIBITION OF THE AGRICULTURAL ASSOCIATION OF UPPER CANADA.

Corrected list of Prizes awarded at the city of Hamilton, September 27, 28, 29 and 30, 1864, in the ARTS AND MANUFACTURES DEPARTMENT.

PRIZE LIST.

CLASS XL.—CABINET WARE AND OTHER WOOD MANUFACTURES.

Judges.—W. Bowman, London; W. Watt, Brantford;
F. S. Clinch, Cobourg.

Cabinet Ware.

Best Centre Table, Jacques & Hay, Toronto, \$8.

Best Drawing Room Sofa, do., do., \$8.

Best Drawing Room Chairs, (set of) do., do., \$8.

Miscellaneous.

Best Cooper's Work, Coridan Lewis, Dereham, \$6.

Best Corn Brooms, 1 doz., Samuel Cann, Hamilton, \$2; 2nd do., M. B. Beasley, Hamilton, \$1.

Best Turning in Wood, collection of specimens, T. Miller, Toronto, \$6; 2nd do., do., Lash & Co., Toronto, \$3.