

TABLE OF TRANSMISSION OF POWER BY WIRE ROPES.

Showing the necessary size and speed of wheels and rope to obtain any desired amount of power:

Diameter of Rope.	Diameter of Pulley.	No. of Revolutions.	Horse Power.	Diameter of Rope.	Diameter of Pulley.	No. of Revolutions.	Horse Power.
1/4	3	100	2	3/4	11	80	75.5
1/4	3	140	3	3/4	11	100	94.4
3/8	4	100	4	3/4	11	120	113.3
3/8	4	120	5	3/4	11	140	132.1
3/8	4	140	5.8	3/4	12	80	99.3
1/2	5	100	8.6	3/4	12	100	124.1
1/2	5	120	10.3	3/4	12	120	148.9
1/2	5	140	12	3/4	12	140	173.7
1/2	6	100	13.4	3/4	13	80	122.6
1/2	6	120	16.1	3/4	13	100	153.2
1/2	6	140	18.7	3/4	13	120	183.9
5/8	7	80	16.9	3/4	14	80	148.
5/8	7	100	21.1	3/4	14	100	185
5/8	7	120	25.3	3/4	14	120	222
5/8	7	140	29.6	7/8	15	80	217
5/8	8	80	22	7/8	15	100	259
5/8	8	100	27.5	7/8	15	120	300
5/8	8	120	33				
5/8	8	140	38.5				
5/8	9	80	41.5				
5/8	9	100	51.9				
5/8	9	120	62.2				
5/8	9	140	72.6				
5/8	10	80	58.4				
5/8	10	100	73				
5/8	10	120	87.6				
5/8	10	140	102.2				

Should it be found necessary to convey the entire power of a certain shaft, which is driven by a belt of a given size, its equivalent may be found by the following simple rule, viz.: That 70 square feet of belt surface is equal to one horse-power. Take for example, a belt one foot wide running at the rate of 1,400 feet per minute, then the

$$\text{Horse-Power} = \frac{1400 \times 1}{70} = 20;$$

and by referring to the table we find the diameter of the wheel corresponding to the horse-power, and making the same number of revolutions that the belt pulley does.

—The Canadian Colored Cotton Mills Company, Ltd., has declared a quarterly dividend of one per cent., payable on the 15th April.

—Henry R. Beveridge, general manager for John B. Ellison & Sons, wholesale woolens, Montreal, shot himself April 14.

—Geo. P. Harley, traveller in the Maritime Provinces for the Dominion Cotton Mills Company, is dead. He had represented them for five years.

—A man who is interested in the woolen manufacturing trade, and who has just returned from a trip among the mills, informs us that for this season of the year business in the woolen trade is unusually quiet.

WEIGHT OF ROLLED SHEETS OF WROUGHT IRON AND STEEL.

Calculation based on specific gravity of 7.7 for iron, and 7.85 for steel.

WEIGHTS PER SQUARE FOOT.							
Birmingham Wire Gauge.				Birmingham Wire Gauge.			
No. of Gauge.	Thickness in inches.	Iron.	Steel.	No. of Gauge.	Thickness in inches.	Iron.	Steel.
0000	.454	18.16	18.52	17	.058	2.32	2.37
000	.425	17.00	17.34	18	.049	1.96	1.99
00	.38	15.20	15.50	19	.042	1.68	1.71
0	.34	13.60	13.87	20	.035	1.39	1.42
1	.3	12.00	12.24	21	.032	1.27	1.30
2	.284	11.36	11.59	22	.028	1.11	1.14
3	.259	10.35	10.56	23	.025	.997	1.02
4	.238	9.52	9.71	24	.022	.880	.898
5	.22	8.80	8.98	25	.02	.800	.816
6	.203	8.12	8.28	26	.018	.719	.734
7	.18	7.19	7.34	27	.016	.640	.653
8	.165	6.60	6.73	28	.014	.560	.571
9	.148	5.92	6.04	29	.013	.520	.531
10	.134	5.36	5.47	30	.012	.480	.489
11	.12	4.80	4.89	31	.01	.399	.408
12	.109	4.35	4.44	32	.009	.359	.367
13	.095	3.80	3.87	33	.008	.320	.326
14	.083	3.32	3.38	34	.007	.280	.286
15	.072	2.88	2.94	35	.005	.200	.204
16	.065	2.60	2.65	36	.004	.159	.162

—A strike occurred at St. Hyacinthe among the Tompkins knitting machine employees, who have been working for the Canadian Woolen Mills Company. They demanded a return to old rates. The company consented to pay them by the day, an amount equal to what they formerly received, but the strikers prefer to work on the old system of piece work.

—A gentleman from Belfast, who understands practically the linen business, is at present in Canada, with the object of interesting capital in the establishment of a linen mill with a capacity of 100 looms. The purpose is to manufacture Irish damasks. The industry would be an entirely new one in this country. The raw material would of course be admitted free of duty.

—The Moncton cotton mill, one of those controlled by the Dominion Cotton Mills Co., is having new machinery installed and the old re-arranged, by which its output will be increased by one-third, and without any enlargement of the building. The production will then be about 30,000 pounds per week of sixty hours. The pay roll now numbers some 285 people, which will be considerably increased when the new machinery is in operation.

—One of the woolen companies writes to us with reference to a difficulty they have encountered. They say: "We have a foreign wool that will not take color though mordanted and treated generally in our accustomed way. This difficulty never presented itself to us heretofore. Can you help us out in the matter?" The difficulty probably arises from lime having been used in pulling the wool, the natural grease and lime forming a compound which resists the dye, and to remove which the use of an acid would probably have to be resorted to. Only an analysis of a sample would show if this were the case.