

Canada Foundry Company Limited

HEAD OFFICE—TORONTO, ONT.

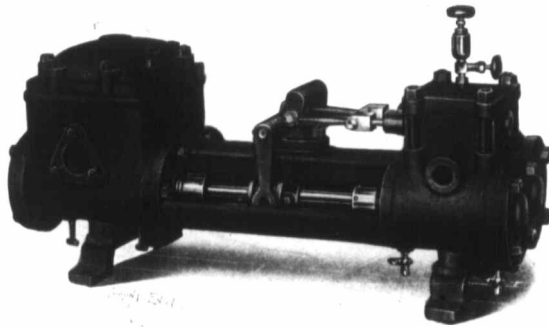
HYDRAULIC DEPARTMENT.

BULLETIN No. 34.
SUPERSEDING 29.

SINGLE AND DUPLEX STEAM PUMPS FOR GENERAL PURPOSES.

On the following pages are illustrated and described a few of the standard Single and Duplex Steam Pumps manufactured by this Company for the handling of fluids against ordinary pressures, and for general purposes.

In their design it will be noted that strength and durability have not been sacrificed to secure low costs, and that the most approved practice has been adhered to in the relation of the stroke to cylinder sizes. This point is one which intending purchasers will do well to consider, as it must be obvious, that within certain limits, the longer the stroke the more economical will be the operation of the pump, while the number of strokes per minute and consequent wear and tear is reduced to a minimum.



DUPLEX BOILER FEED PUMP.

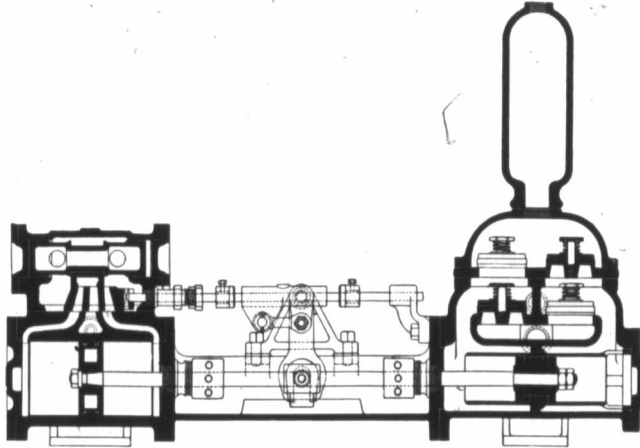
Special tools are used in the manufacture, and all parts have been standardized with the object of facilitating repairs, when necessary, thus avoiding possible annoyance and delay in procuring spare parts.

Every improvement which experience has suggested as valuable and desirable and which tends towards durability and economy in operation, has been embodied in their design, with the idea of placing upon the market a line of apparatus which is typical of the highest development in its class.

The material entering into their construction is carefully selected, the workmanship is strictly first-class in every particular, and each pump is subjected to a thorough test before shipment.

Any reference to "gallons" will be understood as meaning U.S. or Wine Gallons.

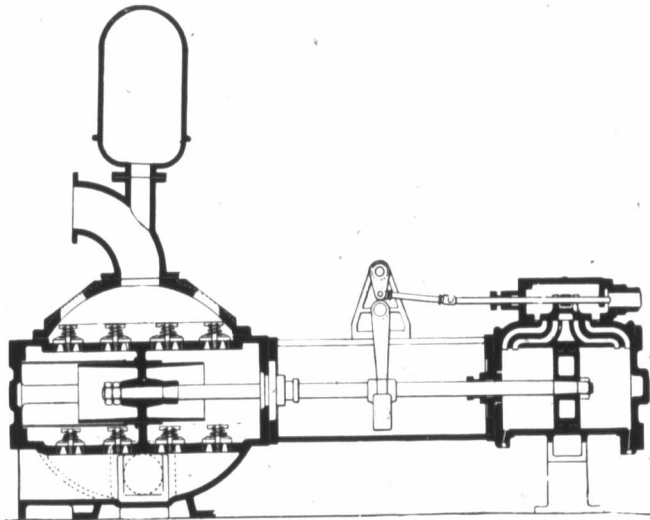
34-2 *Single and Duplex Steam Pumps.*



SECTIONAL VIEW STEAM AND WATER CYLINDERS, SINGLE STEAM PUMP.

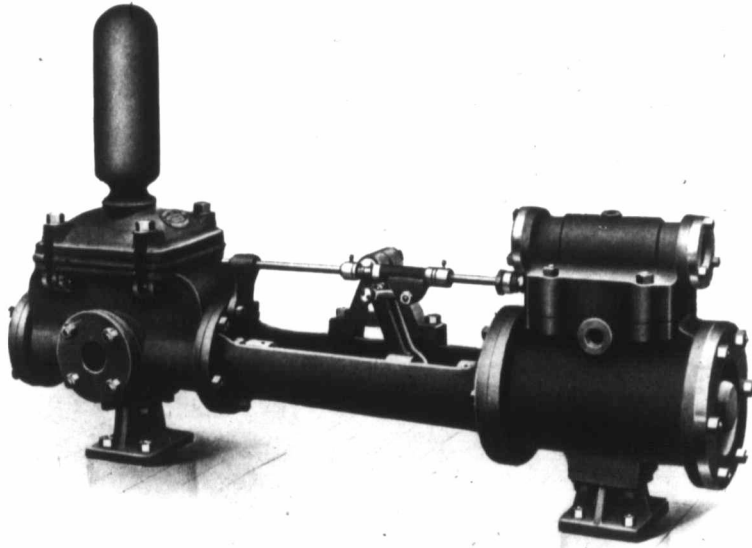
The illustrations as given are representative in a general way only, the types of steam and water cylinders being determined in detail by the style of pump; it is therefore not always possible to supply the exact style as shown, but individual drawings will be submitted if desired.

Inquiries are solicited from prospective buyers for such types as do not appear herein, as the Company manufactures a full line of compound duplex steam pumps, duplex and triplex power pumps, underwriter fire pumps, tank or low service pumps, mining pumps, brewery and acid pumps, centrifugal and turbine pumps, and in fact, pumps for all special duties which are severally treated of in other Bulletins, which will be forwarded on application.



SECTIONAL VIEW STEAM AND WATER CYLINDERS, DUPLEX STEAM PUMP.

When ordering, it is desirable that full information be given as to the service required, and all data which will assist in an intelligent comprehension of the conditions under which the apparatus is to be operated will be of mutual value in securing satisfactory results.



PISTON PATTERN.

SINGLE BOILER FEED OR PRESSURE PUMP.

ARRANGED FOR PUMPING HOT OR COLD WATER OR OTHER FLUIDS.

This pump combines all the necessary features to give satisfaction. It will run as slowly as desired under any pressure, exactly compensating for the water evaporated, a feature of great importance in boiler-feeding. It is reliable, requires little attention, and the construction is such that it may be run at a speed that makes it an efficient fire-pump. It is built throughout of the best material and workmanship; stuffing-boxes, valve-seats, and studs and water-cylinder linings are of the best composition metal; water-pistons and rods of composition at slight additional cost.

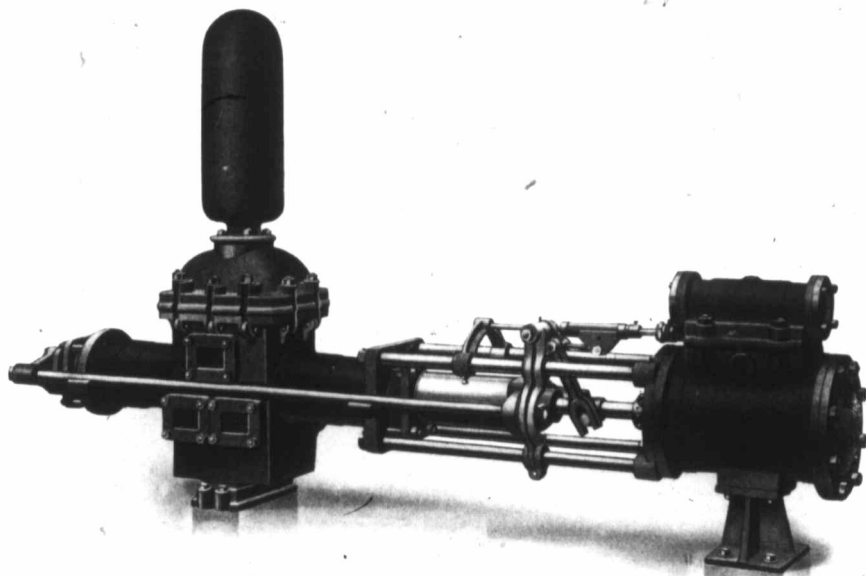
SIZES AND CAPACITIES:

| Code Word. | Steam Cylinder. | Water Cylinder. | Stroke. | Gallons per Stroke. | *Capacity per Minute at Ordinary Speed. | Steam Pipe. | Exhaust Pipe. | Suction Pipe. | Delivery Pipe. | Floor Space Required. |
|------------|-----------------|-----------------|---------|---------------------|---|-------------|---------------|---------------|----------------|-----------------------|
| Paab. | 4 | 2 3/8 | 5 | 10 | 150 strokes, 15 gals. | 1/2 | 3/4 | 1 1/4 | 1 | 37 x 8 |
| Paable. | 4 1/2 | 2 3/4 | 6 | 15 | 150 strokes, 22 gals. | 1/2 | 1 | 1 1/4 | 1 | 37 x 8 |
| Paabro. | 5 1/2 | 3 1/4 | 7 | 25 | 125 strokes, 31 gals. | 3/4 | 1 | 1 1/2 | 1 1/4 | 41 x 9 |
| Paaced. | 6 | 3 3/4 | 7 | 33 | 125 strokes, 42 gals. | 3/4 | 1 | 2 | 1 1/2 | 41 x 10 |
| Paacify. | 6 1/2 | 4 1/8 | 8 | 40 | 125 strokes, 58 gals. | 3/4 | 1 1/4 | 2 1/2 | 2 | 48 x 10 |
| Paack. | 7 1/4 | 4 1/2 | 10 | 60 | 100 strokes, 60 gals. | 1 | 1 1/2 | 2 1/2 | 2 | 52 x 11 |
| Paacket. | 8 | 5 | 12 | 102 | 100 strokes, 102 gals. | 1 | 1 1/2 | 3 1/2 | 3 | 64 x 15 |
| Paaclo. | 10 | 6 | 12 | 147 | 100 strokes, 147 gals. | 1 1/4 | 2 | 3 1/2 | 3 | 66 x 15 |
| Paacm. | 12 | 7 | 12 | 200 | 100 strokes, 200 gals. | 1 1/2 | 2 1/2 | 5 | 4 | 66 x 16 |
| Paacol. | 14 | 8 | 12 | 261 | 100 strokes, 261 gals. | 2 | 3 | 5 | 4 | 66 x 18 |
| Paacp. | 16 | 9 | 18 | 490 | 70 strokes, 347 gals. | 2 | 3 | 8 | 6 | 98 x 28 |

LARGER SIZES TO ORDER.

*Increased capacities can be had in emergencies; but for continuous work, such as boiler-feeding, we advise one-third to one-half the speed stated.

34-4 Single and Duplex Steam Pumps.



OUTSIDE END PACKED PATTERN.
SINGLE PLUNGER PUMP.

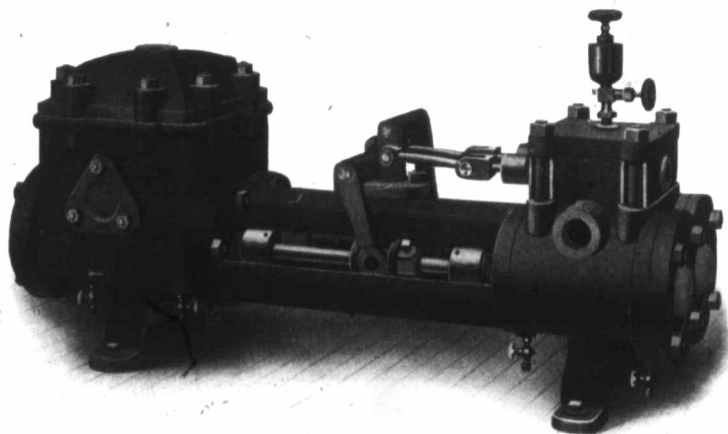
FOR BOILER FEED OR PRESSURE SERVICE.

This pump is specially designed for high pressure, and is adapted for either hot or cold water. As the plungers only are exposed to the action of the water, the presence of mud or gritty substance has no effect upon the working parts, and the packing being outside in full view, any leaks can be instantly detected. The valve-seats and valve-studs are made of the best composition. Valves of composition or rubber are supplied as the service requires.

All the working parts of these pumps are made to gauge, and being *interchangeable*, duplicate parts can be quickly substituted when old parts are worn or broken. Special composition can be used for such parts, as are liable to the corrosive action of chemically bad water at slightly increased cost.

SIZES AND CAPACITIES:

| Code Word. | Steam Cylinder. | Water Plungers. | Stroke. | Gallons per Stroke. | Capacity per Minute at Ordinary Speed. | Steam Pipe. | Exhaust Pipe. | Suction Pipe. | Delivery Pipe. | Floor Space Required. |
|------------|-----------------|-----------------|---------|---------------------|--|-------------|---------------|---------------|----------------|-----------------------|
| Paacre. | 4 | 2 3/8 | 5 | .10 | 150 strokes, 15 gals. | 1/2 | 3/4 | 1 1/4 | 1 | 55 x 8 |
| Paacsen. | 4 1/2 | 2 3/4 | 6 | .15 | 150 strokes, 22 gals. | 1/2 | 3/4 | 1 1/4 | 1 | 56 x 8 |
| Paacsil. | 5 1/2 | 3 1/4 | 7 | .25 | 125 strokes, 31 gals. | 3/4 | 1 | 1 1/2 | 1 1/4 | 68 x 11 |
| Paacw. | 6 | 3 3/4 | 7 | .33 | 125 strokes, 42 gals. | 3/4 | 1 | 2 | 1 1/2 | 68 x 11 |
| Paaczer. | 6 1/2 | 4 1/8 | 8 | .40 | 125 strokes, 58 gals. | 3/4 | 1 1/4 | 2 1/2 | 2 | 71 x 14 |
| Paac. | 7 1/4 | 4 1/2 | 10 | .60 | 100 strokes, 60 gals. | 1 | 1 1/2 | 2 1/2 | 2 | 99 x 14 |
| Paaeble. | 8 | 5 | 12 | 1.02 | 100 strokes, 102 gals. | 1 | 1 1/2 | 3 1/2 | 3 | 121 x 14 |
| Paaced. | 10 | 6 | 12 | 1.47 | 100 strokes, 147 gals. | 1 1/4 | 2 | 3 1/2 | 3 | 134 x 17 |
| Paage. | 12 | 7 | 12 | 2.00 | 100 strokes, 200 gals. | 1 1/2 | 2 1/2 | 5 | 4 | 135 x 19 |
| Paaght. | 14 | 8 | 12 | 2.61 | 100 strokes, 261 gals. | 2 | 3 | 5 | 4 | 136 x 21 |
| Paahb. | 16 | 9 | 18 | 4.06 | 70 strokes, 347 gals. | 2 | 3 | 8 | 6 | |



INSIDE PISTON PATTERN.

DUPLIX BOILER FEED OR PRESSURE PUMP.

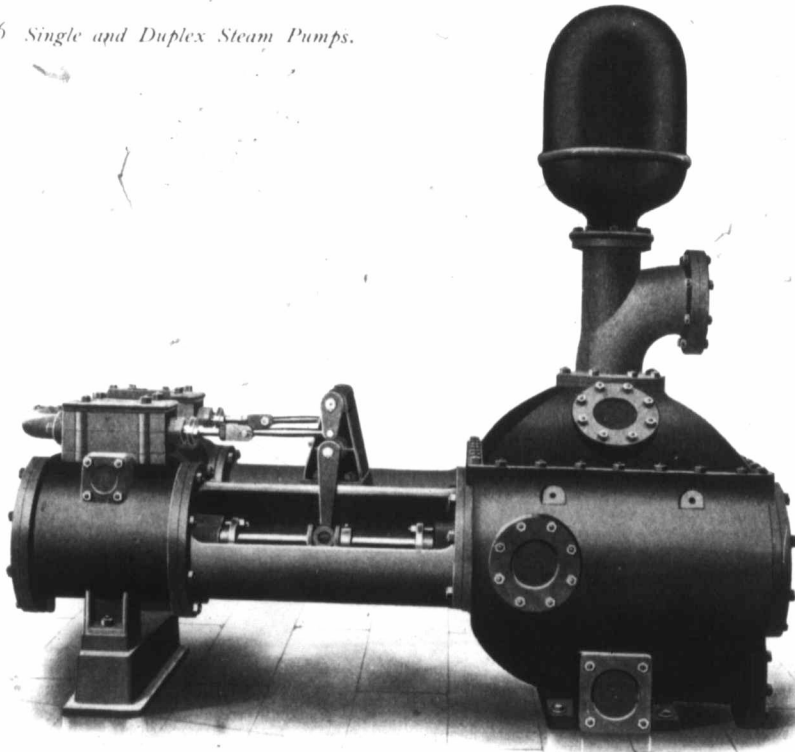
To meet the occasional preference shown for a well-made, inexpensive, duplex pump calculated for general service at moderate pressure, this pump has been designed on the most approved lines, and embodies all useful improvements. The valve motion on larger sizes is *adjustable*, ensuring *full stroke* under all conditions of service. The stroke is long, requiring fewer *reversals* of motion, and ensuring increased *durability* and greater economy, as the clearance spaces are not filled so frequently.

SIZES AND CAPACITIES :

| Code Word. | Steam Cylinder. | Water Cylinder. | Stroke. | Gallons per Stroke each Piston. | Capacity per Minute at Ordinary Speed. | Steam Pipe. | Exhaust Pipe. | Suction Pipe. | Discharge Pipe. | Floor Space Required. |
|------------|-----------------|-----------------|---------|---------------------------------|--|----------------|----------------|----------------|-----------------|-----------------------|
| Pabul. | 3 | 2 | 3 | .04 | 180 strokes, 14 gals. | $\frac{3}{8}$ | $\frac{1}{2}$ | $1\frac{1}{4}$ | 1 | 28 x 10 |
| Pabula. | $4\frac{1}{2}$ | $2\frac{3}{4}$ | 4 | .10 | 150 strokes, 30 gals. | $\frac{1}{2}$ | $\frac{3}{4}$ | 2 | $1\frac{1}{2}$ | 34 x 13 |
| Pacem. | $5\frac{1}{4}$ | $3\frac{1}{2}$ | 6 | .24 | 150 strokes, 72 gals. | $\frac{3}{4}$ | $1\frac{1}{4}$ | $2\frac{1}{2}$ | 2 | 43 x 16 |
| Pacem. | 6 | 4 | 7 | .39 | 125 strokes, 97 gals. | 1 | $1\frac{1}{2}$ | 3 | $2\frac{1}{2}$ | 47 x 18 |
| Pacify. | 6 | 5 | 7 | .60 | 125 strokes, 150 gals. | 1 | $1\frac{1}{2}$ | 3 | $2\frac{1}{2}$ | 47 x 18 |
| Pacing. | $7\frac{1}{2}$ | $4\frac{1}{2}$ | 6 | .42 | 150 strokes, 125 gals. | $1\frac{1}{2}$ | 2 | 4 | 3 | 52 x 24 |
| Pact. | $7\frac{1}{2}$ | 5 | 6 | .51 | 150 strokes, 150 gals. | $1\frac{1}{2}$ | 2 | 4 | 3 | 52 x 24 |
| Pad. | $7\frac{1}{2}$ | $4\frac{1}{2}$ | 10 | .69 | 100 strokes, 138 gals. | $1\frac{1}{2}$ | 2 | 4 | 3 | 59 x 24 |
| Paddo. | $7\frac{1}{2}$ | 5 | 10 | .85 | 100 strokes, 170 gals. | $1\frac{1}{2}$ | 2 | 4 | 3 | 59 x 24 |
| Paddy. | $7\frac{1}{2}$ | 6 | 10 | 1.21 | 100 strokes, 242 gals. | $1\frac{1}{2}$ | 2 | 4 | 3 | 59 x 24 |
| Padlock. | 8 | 5 | 12 | 1.02 | 100 strokes, 204 gals. | $1\frac{1}{2}$ | 2 | 5 | 4 | 72 x 26 |
| Page. | 8 | 6 | 12 | 1.47 | 100 strokes, 204 gals. | $1\frac{1}{2}$ | 2 | 5 | 4 | 72 x 26 |
| Pageant. | 10 | 6 | 12 | 1.47 | 100 strokes, 204 gals. | 2 | $2\frac{1}{2}$ | 5 | 4 | 78 x 30 |
| Pageant. | 10 | 7 | 12 | 2.00 | 100 strokes, 400 gals. | 2 | $2\frac{1}{2}$ | 5 | 4 | 78 x 30 |
| Pail. | 12 | 7 | 12 | 2.00 | 100 strokes, 400 gals. | 2 | $2\frac{1}{2}$ | 6 | 5 | 80 x 34 |

ALSO PATTERNS FOR LARGER SIZES AND OTHER COMBINATIONS OF CYLINDERS.

34-6 Single and Duplex Steam Pumps.



INSIDE PLUNGER PATTERN.
 DUPLEX BOILER FEED OR PRESSURE PUMP.

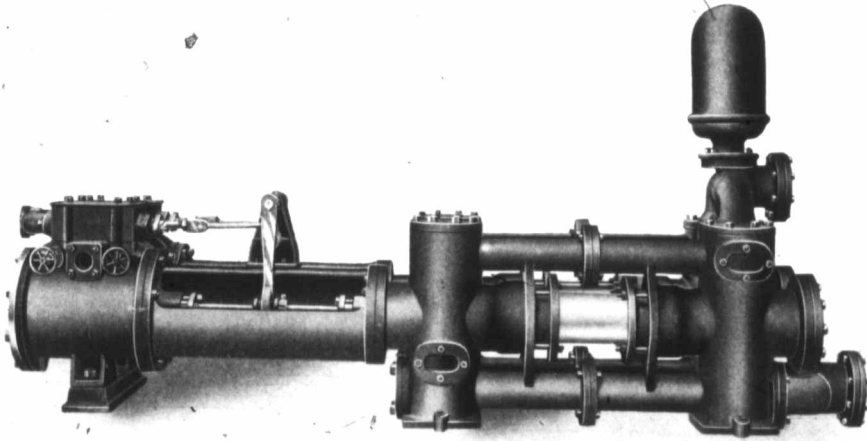
To meet the occasional preference shown for a well-made, inexpensive, duplex pump, calculated for general service at a moderate pressure, this pump has been designed on the most approved lines and embodies all useful improvements. The valve motion on the larger sizes is *adjustable*, ensuring *full stroke* under all conditions of service. The stroke is long, requiring fewer reversals of motion, and obtaining increased *durability* and greater economy, as the clearance spaces are not filled so often.

SIZES AND CAPACITIES:

| Code Word. | Steam Cylinders. | Water Cylinders. | Stroke. | Gallons per Stroke of each Plunger. | Capacity per Minute at Ordinary Speed. | Steam Pipe. | Exhaust Pipe. | Suction Pipe. | Discharge Pipe. | Floor Space Required. |
|------------|------------------|------------------|---------|-------------------------------------|--|-------------|---------------|---------------|-----------------|-----------------------|
| Paint. | 8 | 5 | 12 | 1.02 | 100 strokes, 204 gals. | 1½ | 2 | 5 | 4 | 72 x 26 |
| Pala. | 8 | 6 | 12 | 1.47 | 100 strokes, 294 gals. | 1½ | 2 | 5 | 4 | 72 x 26 |
| Palad. | 10 | 6 | 12 | 1.47 | 100 strokes, 294 gals. | 2 | 2½ | 5 | 4 | 78 x 30 |
| Palate. | 10 | 7 | 12 | 2.00 | 100 strokes, 400 gals. | 2 | 2½ | 6 | 5 | 78 x 30 |
| Pale. | 12 | 7 | 12 | 2.00 | 100 strokes, 400 gals. | 2 | 2½ | 6 | 5 | 84 x 36 |
| Paler. | 12 | 8½ | 12 | 2.94 | 100 strokes, 588 gals. | 2 | 2½ | 6 | 5 | 84 x 36 |
| Palet. | 14 | 8½ | 12 | 2.94 | 100 strokes, 588 gals. | 2½ | 3 | 6 | 5 | 90 x 42 |
| Palf. | 14 | 10½ | 12 | 4.50 | 100 strokes, 900 gals. | 2½ | 3 | 8 | 7 | 90 x 42 |
| Paling. | 16 | 8½ | 12 | 2.94 | 100 strokes, 588 gals. | 2½ | 3 | 6 | 5 | 94 x 45 |
| Palish. | 16 | 10½ | 12 | 4.50 | 100 strokes, 900 gals. | 2½ | 3 | 8 | 7 | 94 x 45 |
| Pall. | 18 | 10½ | 12 | 4.50 | 100 strokes, 900 gals. | 3 | 3½ | 8 | 7 | 96 x 48 |
| Pallas. | 18 | 12 | 12 | 5.87 | 100 strokes, 1174 gals. | 3 | 3½ | 10 | 8 | 96 x 48 |
| Palling. | 20 | 12 | 12 | 5.87 | 100 strokes, 1174 gals. | 4 | 6 | 10 | 8 | 100 x 50 |

ALSO PATTERNS FOR LARGER SIZES AND OTHER COMBINATIONS OF CYLINDERS.

Pumps fitted with composition removable linings, pistons, piston rods, etc., at slight additional cost.



PLUNGER PATTERN.

OUTSIDE CENTRE PACKED DUPLEX PUMP.

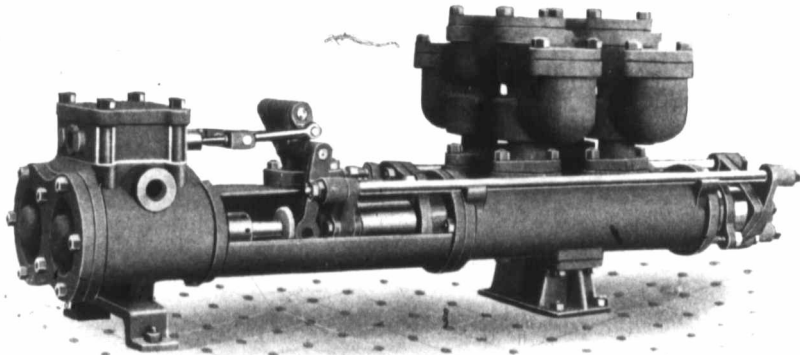
FOR BOILER FEEDING, MINES, HYDRAULIC ELEVATORS, PRESSES, AND ALL DUTIES
REQUIRING THE DELIVERY OF LIQUIDS UNDER HEAVY PRESSURE.

This pump, as will be seen from the cut, has plungers with packing adapted for external adjustment. The plungers work through deep stuffing-boxes, and each plunger is in one piece. Plungers are well supported throughout the stroke and are easily repacked. The patterns are subdivided, so that the breakage of any part necessitates only the renewal of a comparatively small casting. This style of pump is recommended for feeding boilers with hot or cold water, and similar high-pressure duties. It is fitted with cast-iron or composition plungers, as the duty may require, and with any combination of steam cylinders and water plungers to meet the requirements of any service. Unless otherwise ordered cast iron plungers will be supplied. Plungers and piston rods of composition metal at slight additional cost.

SIZES AND CAPACITIES:

| Code Word. | Steam Cylinder. | Plungers. | Stroke. | Gals. per Stroke, each Plunger. | Capacity per Minute at Ordinary Speed. | Steam Pipe. | Exhaust Pipe. | Suction Pipe. | Delivery Pipe. | Floor Space Required. |
|------------|-----------------|-----------|---------|---------------------------------|--|-------------|---------------|---------------|----------------|-----------------------|
| Palm. | 6 | 3 | 7 | .22 | 125 strokes, 55 gals. | 1 | 1½ | 3 | 2½ | 78 x 20 |
| Palmy. | 6 | 3½ | 7 | .34 | 125 strokes, 85 gals. | 1 | 1½ | 3 | 2½ | 78 x 20 |
| Pamp. | 7½ | 3¼ | 10 | .36 | 100 strokes, 72 gals. | 1½ | 2 | 3 | 2½ | 90 x 24 |
| Pan. | 7½ | 3¼ | 10 | .47 | 100 strokes, 94 gals. | 1½ | 2 | 3 | 2½ | 90 x 24 |
| Pander. | 7½ | 4½ | 10 | .69 | 100 strokes, 138 gals. | 1½ | 2 | 4 | 3 | 90 x 24 |
| Panel. | 8 | 4 | 12 | .65 | 100 strokes, 130 gals. | 1½ | 2 | 4 | 3 | 96 x 26 |
| Pangh. | 8 | 4½ | 12 | .82 | 100 strokes, 164 gals. | 1½ | 2 | 4 | 3 | 96 x 26 |
| Panier. | 8 | 5 | 12 | 1.02 | 100 strokes, 204 gals. | 1½ | 2 | 5 | 4 | 96 x 26 |
| Pansy | 9 | 5 | 10 | .85 | 100 strokes, 170 gals. | 2 | 2½ | 5 | 4 | 96 x 26 |
| Pant. | 10 | 4½ | 12 | .82 | 100 strokes, 164 gals. | 2 | 2½ | 4 | 3 | 120 x 30 |
| Pantom. | 10 | 5 | 12 | 1.02 | 100 strokes, 204 gals. | 2 | 2½ | 5 | 4 | 120 x 30 |
| Pap. | 10 | 6 | 12 | 1.47 | 100 strokes, 294 gals. | 2 | 2½ | 5 | 4 | 120 x 30 |
| Papery. | 12 | 5 | 12 | 1.02 | 100 strokes, 204 gals. | 2 | 2½ | 5 | 4 | 126 x 36 |
| Par. | 12 | 6 | 12 | 1.47 | 100 strokes, 294 gals. | 2 | 2½ | 5 | 4 | 126 x 36 |
| Parad. | 12 | 7 | 12 | 2.00 | 100 strokes, 400 gals. | 2 | 2½ | 6 | 5 | 126 x 36 |
| Parag. | 12 | 8 | 12 | 2.61 | 100 strokes, 522 gals. | 2 | 2½ | 6 | 5 | 126 x 36 |
| Parb. | 14 | 5 | 12 | 1.02 | 100 strokes, 204 gals. | 2½ | 3 | 5 | 4 | 132 x 42 |
| Pard. | 14 | 6 | 12 | 1.47 | 100 strokes, 294 gals. | 2½ | 3 | 5 | 4 | 132 x 42 |
| Paret. | 14 | 7 | 12 | 2.00 | 100 strokes, 400 gals. | 2½ | 3 | 6 | 5 | 132 x 42 |

34-8 Single and Duplex Steam Pumps.



WITH POT VALVES.

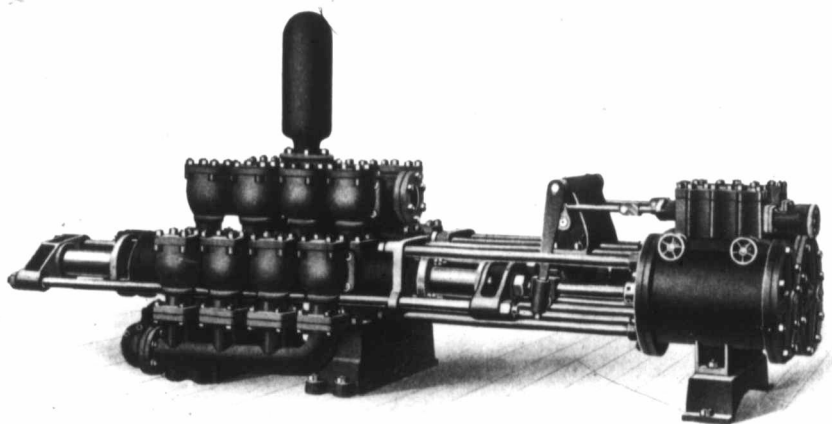
DUPLEX OUTSIDE PACKED PLUNGER PUMP.

This pump is fitted with independent pot valves, a form of water valve that has long been popular with engineers. The advantages gained by the use of this form of valve are: quiet action, great durability, and the special facilities afforded for examination. The valves work on gun metal seats, and can be taken out readily after the covers are removed. The design, as shown, is of very great strength and the utmost possible compactness, the greatest care having been taken to attain these ends. They are manufactured of selected iron, very heavy castings are used throughout, and all the details will be found, on examination, to be of superior workmanship and material.

SIZES AND CAPACITIES:

| Code Word. | Steam Cylinder. | Water Cylinder or Plungers. | Stroke. | Gals. per Stroke, each Plunger. | Capacity per Minute at Ordinary Speed. | Steam Pipe. | Exhaust Pipe. | Suction Pipe. | Delivery Pipe. | Floor Space Required. |
|------------|-----------------|-----------------------------|---------|---------------------------------|--|----------------|----------------|----------------|----------------|-----------------------|
| Parget. | 6 | 3 | 7 | .22 | 125 strokes, 55 gals. | $\frac{3}{4}$ | 1 | 2 | $1\frac{1}{2}$ | 74 x 24 |
| Parian. | 6 | $3\frac{1}{4}$ | 7 | .34 | 125 strokes, 85 gals. | $\frac{3}{4}$ | 1 | 2 | $1\frac{1}{2}$ | 74 x 24 |
| Parlet. | $7\frac{1}{2}$ | $3\frac{1}{4}$ | 10 | .36 | 100 strokes, 72 gals. | 1 | $1\frac{1}{2}$ | 2 | $1\frac{1}{2}$ | 100 x 32 |
| Parley. | $7\frac{1}{2}$ | $3\frac{1}{4}$ | 10 | .47 | 100 strokes, 94 gals. | 1 | $1\frac{1}{2}$ | $2\frac{1}{2}$ | 2 | 100 x 32 |
| Parro. | $7\frac{1}{2}$ | $4\frac{1}{2}$ | 10 | .60 | 100 strokes, 138 gals. | 1 | $1\frac{1}{2}$ | $2\frac{1}{2}$ | 2 | 100 x 32 |
| Pars. | 8 | 4 | 12 | .65 | 100 strokes, 130 gals. | 1 | $1\frac{1}{2}$ | 3 | $2\frac{1}{2}$ | 108 x 36 |
| Parson. | 8 | $4\frac{1}{2}$ | 12 | .82 | 100 strokes, 164 gals. | 1 | $1\frac{1}{2}$ | 3 | $2\frac{1}{2}$ | 108 x 36 |
| Parti. | 8 | 5 | 10 | .85 | 100 strokes, 170 gals. | 1 | $1\frac{1}{2}$ | 3 | $2\frac{1}{2}$ | 108 x 36 |
| Partnes. | 8 | 5 | 12 | 1.02 | 100 strokes, 204 gals. | 1 | $1\frac{1}{2}$ | $3\frac{1}{2}$ | 3 | 108 x 36 |
| Party. | 10 | 4 | 12 | .65 | 100 strokes, 130 gals. | $1\frac{1}{4}$ | 2 | 3 | $2\frac{1}{2}$ | 132 x 42 |
| Pasha. | 10 | $4\frac{1}{2}$ | 12 | .82 | 100 strokes, 164 gals. | $1\frac{1}{4}$ | 2 | 3 | $2\frac{1}{2}$ | 132 x 42 |
| Pass. | 10 | 5 | 12 | 1.02 | 100 strokes, 204 gals. | $1\frac{1}{4}$ | 2 | $3\frac{1}{2}$ | 3 | 132 x 42 |
| Passing. | 10 | 6 | 12 | 1.47 | 100 strokes, 294 gals. | $1\frac{1}{4}$ | 2 | $3\frac{1}{2}$ | 3 | 132 x 42 |
| Pastel. | 12 | 5 | 12 | 1.02 | 100 strokes, 204 gals. | $1\frac{1}{2}$ | $2\frac{1}{2}$ | $3\frac{1}{2}$ | 3 | 135 x 48 |
| Pastor. | 12 | 6 | 12 | 1.47 | 100 strokes, 294 gals. | $1\frac{1}{2}$ | $2\frac{1}{2}$ | $3\frac{1}{2}$ | 3 | 135 x 48 |
| Pasture. | 12 | 7 | 12 | 2.00 | 100 strokes, 400 gals. | $1\frac{1}{2}$ | $2\frac{1}{2}$ | 5 | 4 | 135 x 48 |
| Pate. | 12 | 8 | 12 | 2.61 | 100 strokes, 522 gals. | $1\frac{1}{2}$ | $2\frac{1}{2}$ | 5 | 4 | 135 x 48 |
| Path. | 14 | 5 | 12 | 1.02 | 100 strokes, 204 gals. | 2 | 3 | $3\frac{1}{2}$ | 3 | 140 x 50 |
| Patient. | 14 | 6 | 12 | 1.47 | 100 strokes, 294 gals. | 2 | 3 | $3\frac{1}{2}$ | 3 | 140 x 50 |
| Patrotic. | 14 | 7 | 12 | 2.00 | 100 strokes, 400 gals. | 2 | 3 | 5 | 4 | 140 x 50 |

FOR LARGER SIZES SEE NEXT PAGE.



WITH POT VALVES.

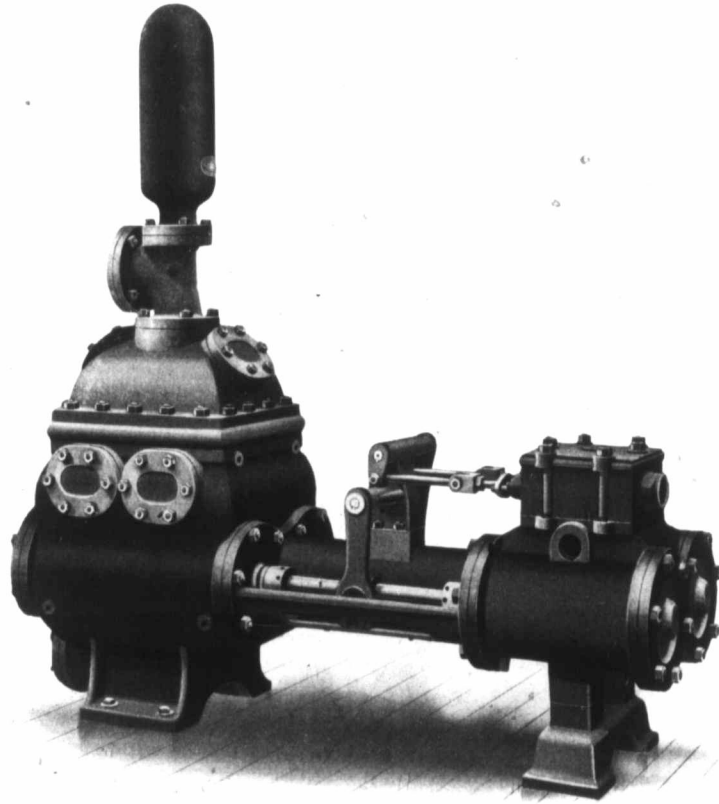
DUPLEX OUTSIDE PACKED PLUNGER PUMP.

This is a larger type of the Duplex Pump described on the previous page, and comprises the same general principles, modified and strengthened as required for the greater capacity.

SIZES AND CAPACITIES:

| Code Word. | Steam Cylinder. | Water Cylinder or Plungers. | Stroke. | Gals. per Stroke, each Plunger. | Capacity per Minute at Ordinary Speed. | Steam Pipe. | Exhaust Pipe. | Suction Pipe. | Delivery Pipe. |
|------------|-----------------|-----------------------------|---------|---------------------------------|--|-------------|---------------|---------------|----------------|
| Patten. | 14 | 7 | 18 | 3.00 | 70 strokes, 420 gals. | 2 | 3 | 5 | 4 |
| Patty. | 14 | 8 | 12 | 2.01 | 100 strokes, 522 gals. | 2 | 3 | 5 | 4 |
| Paw. | 14 | 8 | 18 | 3.02 | 70 strokes, 548 gals. | 2 | 3 | 6 | 4 |
| Pay. | 16 | 7 | 18 | 3.00 | 70 strokes, 420 gals. | 2 | 3 | 5 | 4 |
| Payment. | 16 | 7 | 24 | 4.00 | 55 strokes, 440 gals. | 2 | 3 | 5 | 4 |
| Paynim. | 16 | 8 | 18 | 3.02 | 70 strokes, 548 gals. | 2 | 3 | 6 | 4 |
| Pea. | 16 | 8 | 24 | 5.22 | 55 strokes, 574 gals. | 2 | 3 | 8 | 6 |
| Peak. | 16 | 9 | 18 | 4.06 | 70 strokes, 694 gals. | 2 | 3 | 8 | 6 |
| Pear. | 16 | 9 | 24 | 6.60 | 55 strokes, 726 gals. | 2 | 3 | 8 | 6 |
| Peck. | 16 | 10 | 18 | 6.12 | 70 strokes, 857 gals. | 2 | 3 | 8 | 6 |
| Pedal. | 16 | 10 | 24 | 8.16 | 55 strokes, 897 gals. | 2 | 3 | 10 | 8 |
| Peer. | 18 | 8 | 18 | 3.02 | 70 strokes, 548 gals. | 2½ | 3½ | 6 | 4 |
| Peg. | 18 | 8 | 24 | 5.22 | 55 strokes, 574 gals. | 2½ | 3½ | 8 | 6 |
| Pelf. | 18 | 9 | 18 | 4.06 | 70 strokes, 694 gals. | 2½ | 3½ | 8 | 6 |
| Pen. | 18 | 9 | 24 | 6.60 | 55 strokes, 726 gals. | 2½ | 3½ | 8 | 6 |
| Pendent. | 18 | 10 | 18 | 6.12 | 70 strokes, 857 gals. | 2½ | 3½ | 8 | 6 |
| Pendin. | 18 | 10 | 24 | 8.16 | 55 strokes, 897 gals. | 2½ | 3½ | 10 | 8 |

DRAWINGS AND SPECIFICATIONS FOR LARGER SIZES FURNISHED ON REQUEST.

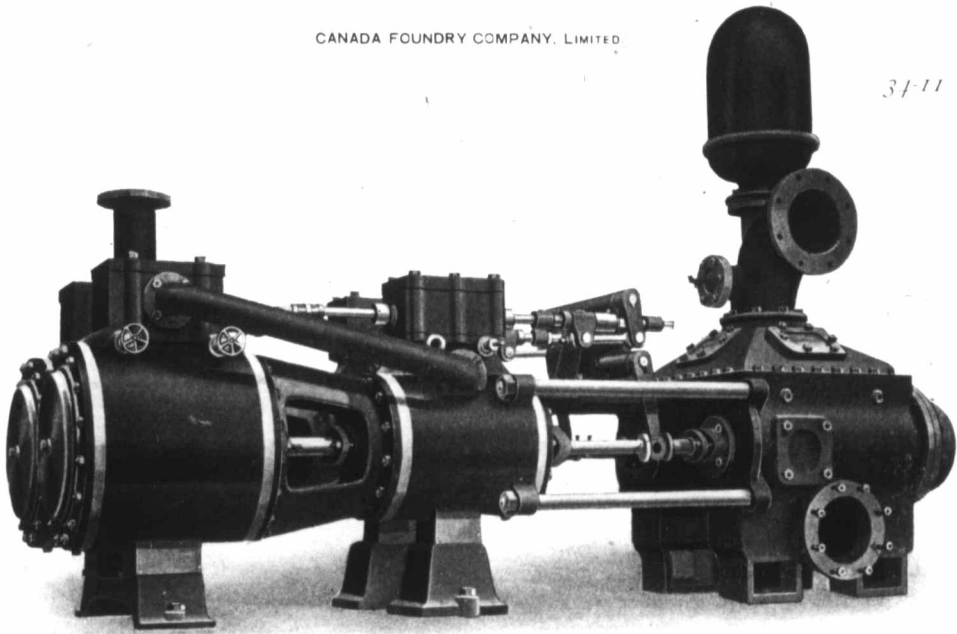
34-10 Single and Duplex Steam Pumps.

DUPLEX PISTON PUMP.

FOR TANK OR LIGHT SERVICE.

This pump is of the same general design and construction as our regular Duplex Pump, but has water plungers or pistons nearly or quite as large as its steam pistons. It is used where desired to elevate a large quantity of water to a moderate height with ordinary steam pressure, as for railway tanks, oil refineries, etc.

| Code Word. | Steam Cylinder. | Water Cylinder up to. | Stroke. | Gals. per Stroke, each Piston. | Capacity per Minute at Ordinary Speed. | Steam Pipe. | Exhaust Pipe. | Suction Pipe. | Discharge Pipe. | Floor Space Required. |
|------------|-----------------|-----------------------|---------|--------------------------------|--|-------------|---------------|---------------|-----------------|-----------------------|
| Perspired. | 4½ | 3¾ | 4 | 10 | 150 strokes, 57 gals. | ½ | ¾ | 2½ | 2 | 30 x 14 |
| Pert. | 5¼ | 4¾ | 6 | 46 | 150 strokes, 138 gals. | ¾ | 1¼ | 3 | 2½ | 45 x 16 |
| Perturbed. | 6 | 5½ | 7 | 72 | 125 strokes, 180 gals. | 1 | 1½ | 5 | ¾ | 54 x 20 |
| Peruke. | 7½ | 6 | 10 | 122 | 100 strokes, 244 gals. | 1½ | 2 | 5 | 4 | 60 x 24 |
| Perused. | 8 | 7 | 12 | 200 | 100 strokes, 400 gals. | 1½ | 2 | 6 | 5 | 72 x 26 |
| Perverted. | 10 | 8½ | 12 | 294 | 100 strokes, 588 gals. | 2 | 2½ | 6 | 5 | 80 x 30 |
| Pest. | 12 | 10½ | 12 | 450 | 100 strokes, 900 gals. | 2 | 2½ | 8 | 7 | 90 x 40 |
| Pet. | 14 | 12 | 12 | 587 | 100 strokes, 1174 gals. | 2½ | 3 | 10 | 8 | 96 x 45 |
| Petals. | 12 | 10 | 18 | 1566 | 70 strokes, 2102 gals. | 2½ | 3 | 14 | 12 | 120 x 50 |



COMPOUND DUPLEX STEAM PUMP.

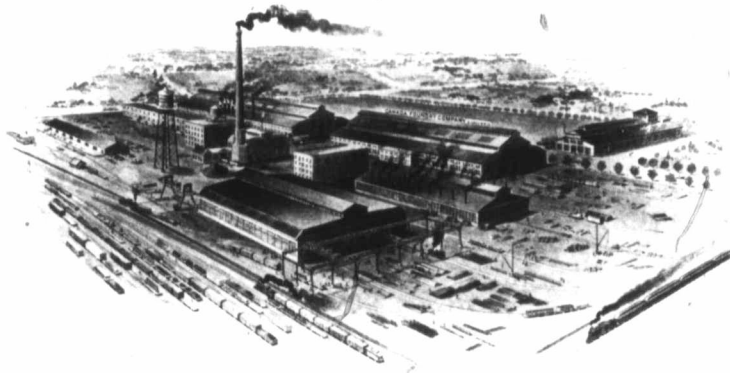
This pump is designed to use steam expansively, as in an ordinary cut-off engine, the object being economy of fuel. About one-third of the steam necessary for a plain duplex pump is saved by this arrangement, and less boiler capacity is consequently necessary. The saving in fuel will much more than justify the additional first cost, and proprietors of large buildings and officers of town and village water works will readily appreciate the advantages of using this type of pump.

The application of our independent air pump and jet condenser to these compound pumps increases their economy to a still higher degree, and we recommend such an arrangement wherever economy is an object.

SIZES AND CAPACITIES:

| Code Word. | High Pressure Steam Cylinders. | Low Pressure Steam Cylinders. | Water Plungers. | Stroke. | Gals. per Stroke, each Plunger. | Strokes per Minute of each Plunger. | Capacity per Minute at Ordinary Speed. | Steam Pipe. | Exhaust Pipe. | Suction Pipe. | Delivers Pipe. |
|------------|--------------------------------|-------------------------------|-----------------|---------|---------------------------------|-------------------------------------|--|-------------|---------------|---------------|----------------|
| Pentat. | 6 | 9 | 6 | 12 | 1.47 | 50 to 100 | 147 to 294 | 1 1/2 | 2 1/2 | 6 | 5 |
| Peony. | 7 1/2 | 10 1/2 | 7 | 12 | 2.00 | 50 to 100 | 200 to 400 | 2 | 2 1/2 | 6 | 5 |
| Perch. | 8 | 12 | 8 1/2 | 12 | 3.00 | 50 to 100 | 300 to 600 | 2 | 2 1/2 | 6 | 5 |
| Perdu. | 9 | 14 | 10 1/2 | 12 | 4.50 | 50 to 100 | 450 to 900 | 2 | 2 1/2 | 8 | 7 |
| Perfect. | 8 | 12 | 10 1/2 | 12 | 4.50 | 50 to 100 | 450 to 900 | 2 | 2 1/2 | 8 | 7 |
| Perfumed. | 10 | 16 | 8 1/2 | 12 | 3.00 | 50 to 100 | 300 to 600 | 2 | 4 | 6 | 5 |
| Peri. | 10 | 16 | 10 1/2 | 12 | 4.50 | 50 to 100 | 450 to 900 | 2 | 4 | 8 | 7 |
| Perican. | 10 | 16 | 12 | 12 | 5.87 | 50 to 100 | 587 to 1174 | 2 | 4 | 10 | 8 |
| Perip. | 12 | 18 1/2 | 10 1/2 | 12 | 4.50 | 50 to 100 | 450 to 900 | 2 | 4 | 8 | 7 |
| Perishable | 12 | 18 1/2 | 12 | 12 | 5.87 | 50 to 100 | 587 to 1174 | 2 | 4 | 10 | 8 |
| Perjured. | 12 | 18 1/2 | 14 | 12 | 8.00 | 50 to 100 | 800 to 1600 | 2 | 4 | 12 | 10 |
| Perked. | 12 | 18 1/2 | 14 | 18 | 12.00 | 40 to 70 | 960 to 1680 | 2 | 4 | 12 | 10 |
| Perpend. | 14 | 20 | 10 1/2 | 18 | 6.75 | 40 to 70 | 540 to 945 | 3 | 6 | 8 | 7 |
| Perpet. | 14 | 20 | 12 | 18 | 8.80 | 40 to 70 | 684 to 1232 | 3 | 6 | 10 | 8 |
| Persia. | 14 | 20 | 14 | 18 | 12.00 | 40 to 70 | 960 to 1680 | 3 | 6 | 12 | 10 |

ALSO PATTERNS FOR LARGER SIZES AND OTHER COMBINATIONS.



DAVENPORT WORKS.

CANADA FOUNDRY COMPANY, LIMITED.

HEAD OFFICE AND WORKS: TORONTO, ONT.

DISTRICT OFFICES:

- | | |
|----------------------|---------------------------|
| MONTREAL, - - - - - | 81 ST. PETER STREET. |
| HALIFAX, - - - - - | 178-182 HOLLIS STREET. |
| OTTAWA, - - - - - | CITIZEN BUILDING. |
| WINNIPEG, - - - - - | 148 NOTRE DAME ST. EAST. |
| VANCOUVER, - - - - - | 527-529 GRANVILLE STREET. |
| ROSSLAND, B.C. | |