THE

HOLLY MANUFACTURING CO.'S

ILLUSTRATED CATALOGUE

AND

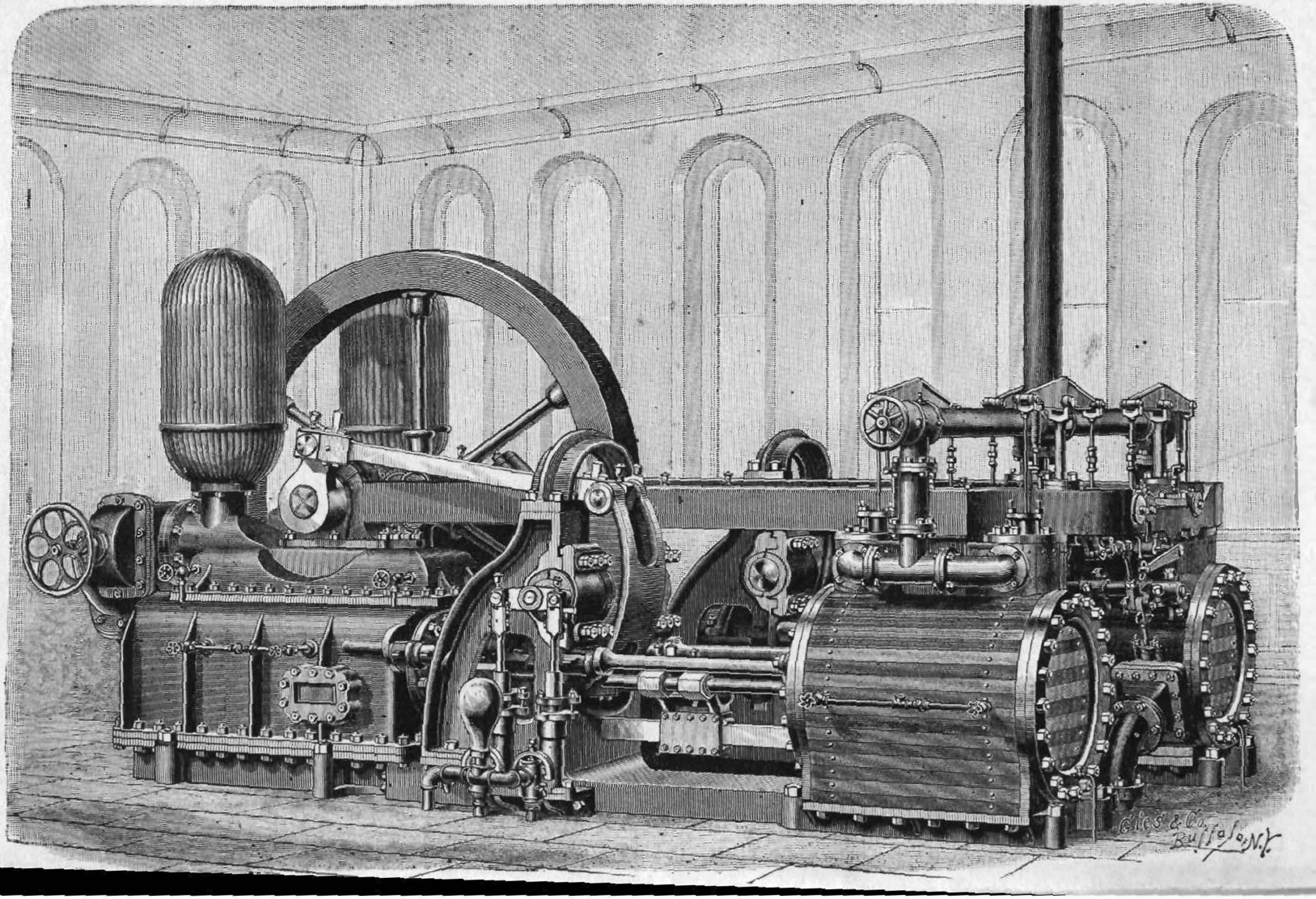
REDUCED PRICE LIST

OF

ROTARY AND OTHER POWER PUMPS,

LOCKPORT, N. Y.

1884.


Gies & Co.
Buffalo, N.Y.

HOLLY'S

IMPROVED WATER WORKS

DIRECT PUMPING PLAN.

COMBINES, WITH OTHER ADVANTAGES, OVER OTHER SYSTEMS THE FOLLOWING:

1.—Secures by Variable Pressure a more Reliable Supply of Water for all Purposes. 2.—Less Cost for Construction. 3.—Less Cost for Maintainance. 4.—Less Cost for Daily Supply by the Use of Holly's Improved Pumping Machinery. 5.—Affords the Best Fire Protection in the World. 6.—Largely Reduces Insurance Risks and Premiums. 7.—Dispenses with Fire Engines, in Whole or in Part. 8.—Reduces Fire Department Expenses.

GASKILL'S NEW AND IMPROVED

COMPOUND PUMPING ENGINE

THIS ENGINE DEVELOPS THE HIGHEST DUTY

IN DAILY SERVICE OF ANY ENGINE BUILT, AND PROMPT INCREASE OF *POWER FOR EFFICIENT FIRE PROTECTION.*

In Daily Working and Special Tests, these Engines show a Duty over 100,000,000 Pounds of Water Raised One Foot with One Hundred Pounds of Coal, when Pumping Directly into the Mains. Water Works on this Plan have been put in Successful Operation by this Company within the last few years in over One Hundred Cities and Villages in the United States.

For Information by Descriptive Pamplet or Otherwise, Address the

HOLLY MANUFACTURING CO.,

LOCKPORT, N. Y

WARD & COBB,

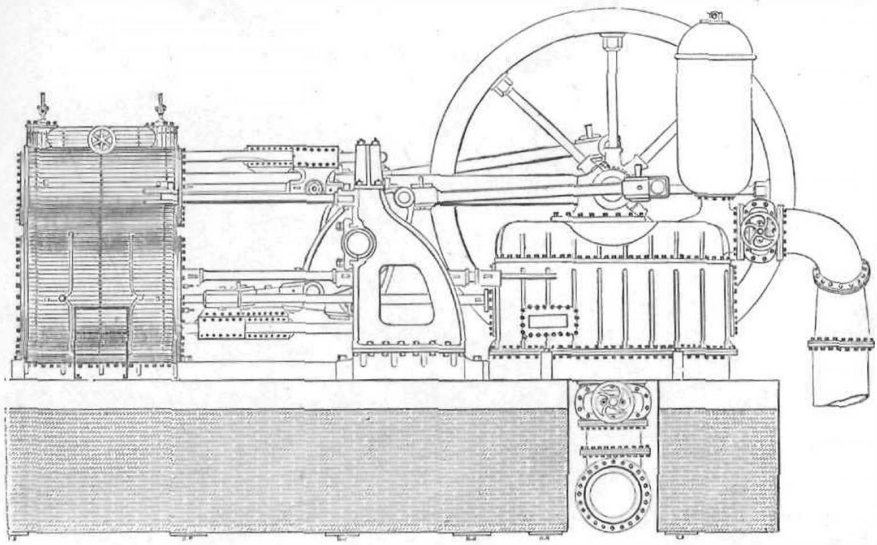
BOOK AND JOB PRINTERS,

93 MAIN ST., - LOCKPORT, N. Y.

THE HOLLY MANUFACTURING COMPANY'S

HIGH DUTY PUMPING ENGINE

DESIGNED BY H. F. GASKILL.



Estimates furnished for any capacity up to 15,000,000 gallons daily. Duty guaranteed from 70,000,000 to 100,000,000 foot-pounds per 100 pounds of coal.

The following table shows the progress made by this company in the matter of high duty engines:

Date.	Place.	Capacity of Engine, gallons per day.	Duty.	Authority.
1874..	Rochester, N. Y..	3,000,000...	63,309,100..	J. Nelson Tubbs, C. E.
1875..	Atlanta, Ga.....	2,000,000...	60,403,800..	R. T. Scowden, C. E.
1876..	Binghamton, N. Y.	2,000,000...	81,514,000..	John Evans.
1876.	Taunton, Mass...	2,000,000...	75,115,500..	C. Holly, M. E.
1878..	Burlington, Iowa.	2,000,000...	71,514,000..	T. N. Boutelle
1879..	Buffalo, N. Y....	6,000,000...	86,176,300..	R. H. Buell, M. E.
1880..	Troy, N. Y.....	6,000,000...	80,094,000..	D. M. Green, C. E.
1881..	Evansville, Ind .	4,000,000...	88,688,800..	J. W. Hill, M. E.
1881..	Fort Wayne, Ind.	3,000,000...	86,999,900..	J. D. Cook, C. E.
1882..	Atlanta, Ga.....	4,000,000...	77,912,000..	W. G. Richards.
1882..	Memphis, Tenn...	4,000,000...	97,409,600	J. W. Hill, M. E.
1882..	" " ...	4,000,000...	99,672,800..	J. W. Hill, M. E.
1882..	Saratoga, N. Y...	5,000,000...	112,899,983..	J. W. Hill and Prof. D. M. Green.
1883..	" " ..	5,000,000...	106,838,000..	Prof. Chas. T. Porter.
1883..	Omaha, Neb.....	5,000,000...	102,000,000..	J. D. Cook, C. E.
1884..	Columbus, Ohio...	10,000,000...	115,400,000..	Prof T. C. Menderhall.

T. T. FLAGLER, *President.* C. G. HILDRETH, *Secretary.*
H. H. FLAGLER, *Treasurer.* H. F. GASKILL, *Eng'r and Sup't.*

OFFICE OF

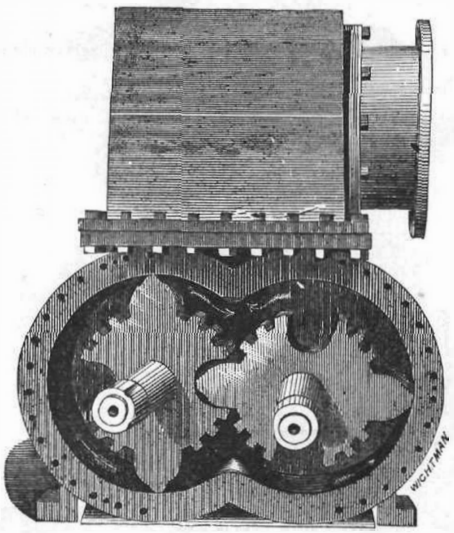
HOLLY MANUFACTURING COMPANY,

LOCKPORT, N. Y.

HOLLY'S ELLIPTICAL ROTARY PUMP

Is the only one of its class that has stood the test of time. It has been before the public for more than twenty years, during which period it has stood pre-eminent, and is still the Standard Rotary Pump of the World.

As made at this establishment, it combines all the improvements which superior inventive genius can devise, and which many years of practical experience in hydraulics can suggest. Special attention is called to its peculiar merits, which are as follows: 1. It gives a steady and uniform flow of water. 2. It is so constructed that when in use the load is evenly distributed, and each part subjected as nearly as possible to equal strain and wear. 3. The shafts are of steel, and in the Power Pumps have outside bearings. 4. The Pump is firmly bolted to a heavy iron frame of one casting, which permanently secures the shafts in line. 5. The periphery of cams or long cogs, also the sides of revolving pistons, are fitted with small grooves, which become filled with water, and when the pistons are in motion, the water in the grooves becomes opposed to the resistance of the water to be forced, and serves as a tight packing. 6. It works equally well under high or low pressure, and at high or low rates of speed. 7. It is simple in construction. 8. Compact, occupying comparatively little space. 9. More durable than any other Rotary Pump. 10. For fire protection is without a rival.



The above cut represents the internal construction of the Holly Rotary Pump.

Unless otherwise ordered, all Rotary Pumps are fitted with coupling or Counter Shaft to run "right-handed."

Coupling fitted to the shaft on this side, as of above cut, is called right-handed.

Coupling fitted to the shaft on this side, as of above cut, is called left-handed.

Never condemn a pump without having given it a thorough examination.

The smallest air leak in the suction will prevent the best pump from working satisfactorily. The size of suction pipe should always be as large as the water way of the pump. Avoid angles in the pipes, as they impede the flow of water, cause friction and loss of power.

NOTE.—Parties ordering Pumps will please bear in mind that the last figures in the table for Capacity under the numbers of the pumps, indicate the highest rate of speed recommended for constant use. For occasional use it will be safe to increase 25 to 50 per cent., according to circumstances.

All sizes of pumps in this Catalogue always in stock, or in course of construction.

TERMS OF SALE.—Cash in 30 days from date of invoice unless otherwise agreed.

B. HOLLY'S ROTARY HAND PUMP.

Designed for cisterns or shallow wells, and as a Force Pump for forcing water into upper rooms and tanks; or through hose and discharge pipe for washing carriages, sprinkling gardens, lawns, carriage ways, walks, &c.

Are unequaled for "racking" purposes in wine cellars, cider and vinegar factories, small breweries, &c.

These pumps are not recommended for out-door winter use, or for other places where they will be exposed to severe frost, *except in wells or cisterns not exceeding six or seven feet in depth.* In such cases the check valve in the base of the Pump should be removed in cold weather, so as to permit the water to return to the cistern immediately after the pump is stopped. In wells of greater depth, the check valve should remain in place, and the pump and pipes if exposed, should be secured against freezing.

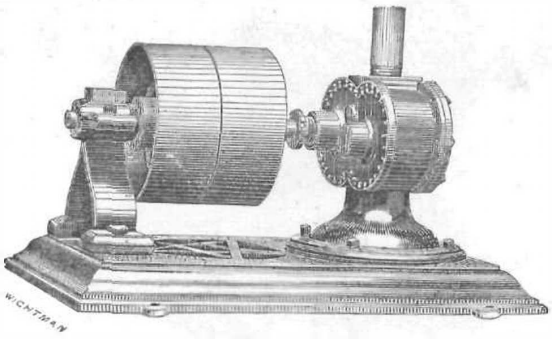
With a No. 1 Pump, forty gallons can be easily handled in from three to four minutes, and with a No. 1½ Pump, in about one-third less time.

REDUCED PRICES.

No. 1,	All Iron,	suitable for 1¼	inch Suction Pipe. each	$15	00
" 1,	With Bronze Cams,	" " 1¼	" " " "	18	00
" 1,	With Bronze Case and Cams,	" " 1¼	" " " "	40	00
" 1½,	All Iron,	" " 1¼ or 1½	" " " "	20	00
" 1½,	With Bronze Cams.	" " 1¼ "	" " " "	23	00
" 1½,	With Bronze Case and Cams,	" " 1¼ "	" " " "	45	00

ROTARY OIL PUMP.

Nos. 1 and 1½.



Without outside gears, designed only for light work. Is very simple in construction, and particularly adapted to pumping oil. Made of Bronze when so ordered, for pumping Acids, Alkalies, &c.

Suction and discharge openings fitted, No. 1, for 1¼ inch, and No. 1½ for 1½ wrought iron pipe. A brass union coupling for lead or copper pipe, will be furnished without charge when ordered.

No. 1, Tight and Loose Pulleys, 7 in. diameter, 2½ in. face.
No. 1½, " " " " 7 " 2½ "

CAPACITY.

Revolutions Per Minute	Gallons Discharged Per Minute. No. 1.	No. 1½.
100	11.31	17.00
120	13.57	20.50
140	15.83	23.80
180	18.10	27.20
180	20.36	30.60
200	22.92	34.00
250	28.27	45.50
300	33.93	51.00

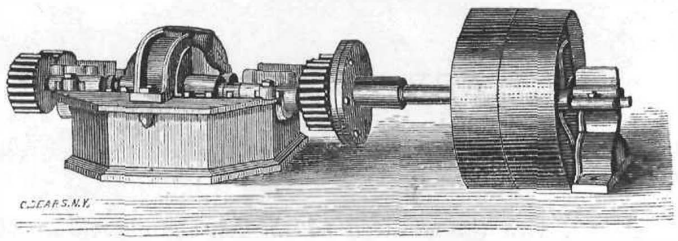
PRICES,

Including Tight and Loose Pulleys.

No. 1, - - - - - - - - Iron. $22.00 - - - - - - Bronze, $45.00
No. 1½, - - - - - - - - Iron. 30.00 - - - - - - Bronze, 60.00

ROTARY POWER PUMP.

Nos. 1, 1½ and 2.



The Pump described in this and the succeeding page, is provided with double outside gears, to relieve the internal parts from undue strain or wear.

The three sizes on this page are fitted for wrought iron pipe, the suction and discharge being the same.

No. of Pump	1,	1½,	2
Diameter of pipes, in inches	1¼,	1½,	2
Diameter of pulleys, in inches	7,	7,	12
Face of pulleys, in inches	2½,	2½,	3

CAPACITY.

Revolutions Per Minute.	Gallons Discharged per Minute. No. 1.	No. 1½.	No. 2.
60	6.78	10.2	20.36
80	9.05	13.6	27.15
100	11.31	17.0	33.93
120	13.57	20.4	40.72
140	15.83	23.8	47.51
160	18.10	27.2	54.29
180	20.36	30.0	61.08
200	22.62	34.6	67.87
220	24.88	37.4	——
240	27.14	40.8	——
260	29.40	——	——
280	31.66	——	——
300	33.93	——	——

PRICES,

Including Counter Shaft, with Tight and Loose Pulleys and Standard.

No. 1,	Iron, $40 00	Bronze, $ 60 00
No. 1½,	Iron, 50 00	Bronze, 100 00
No. 2,	Iron, 65 00	Bronze, 140 00

ROTARY POWER PUMP.

No. 3.

Same as No. 2, with the addition of an Air-chamber, but of double its capacity.

Suction and discharge fitted for three-inch flange pipe, but will be fitted for wrought iron pipe when so ordered without extra charge.

Diameter of Pipe Flanges, 5⅞ inches.

When made in Bronze, the Air-chamber is omitted, and the discharge fitted with a short connection furnished with flange and collar suitable for copper pipe.

Tight and Loose Pulleys, 18 in. diameter, 4 in. face.

CAPACITY.

Revolutions Per Minute.	Discharge Per Minute.
60	40.72 gallons.
80	54.29 "
100	67.87 "
120	81.44 "
140	95.02 "
160	108.58 "
180	122.16 "
200	135.74 "

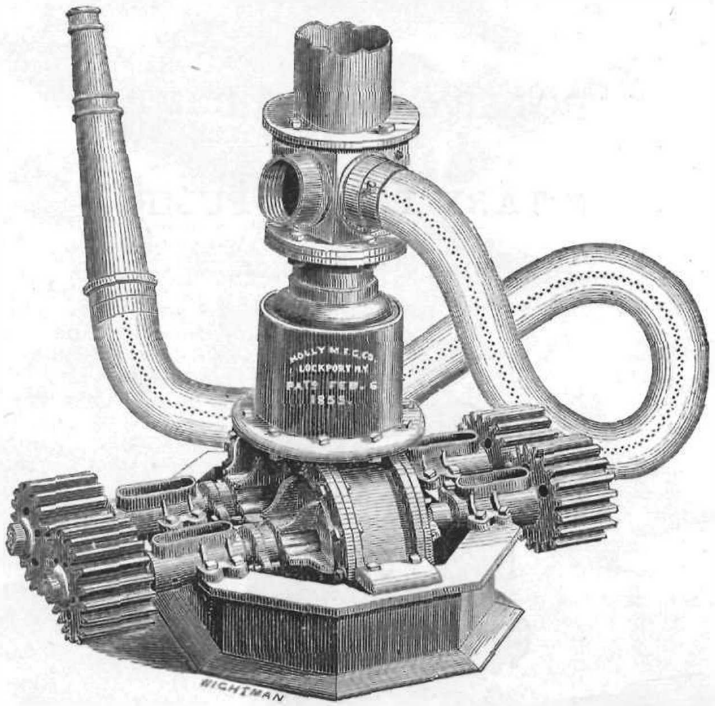
PRICES,

Including Counter Shaft, with Tight and Loose Pulleys and Standard.

No. 3, - - - - - - Iron, $100 00 - - - - - - Bronze, $200 00

ROTARY FIRE PUMPS.

Nos. 3, 4, 5.



These three sizes are unequalled for Fire Protection to Manufacturing Establishments, Large Hotels, &c.

We recommend the provision, under ordinary circumstances, of fifteen to twenty horse-power for each stream of water thrown from a one inch nozzle to the height of 100 feet.

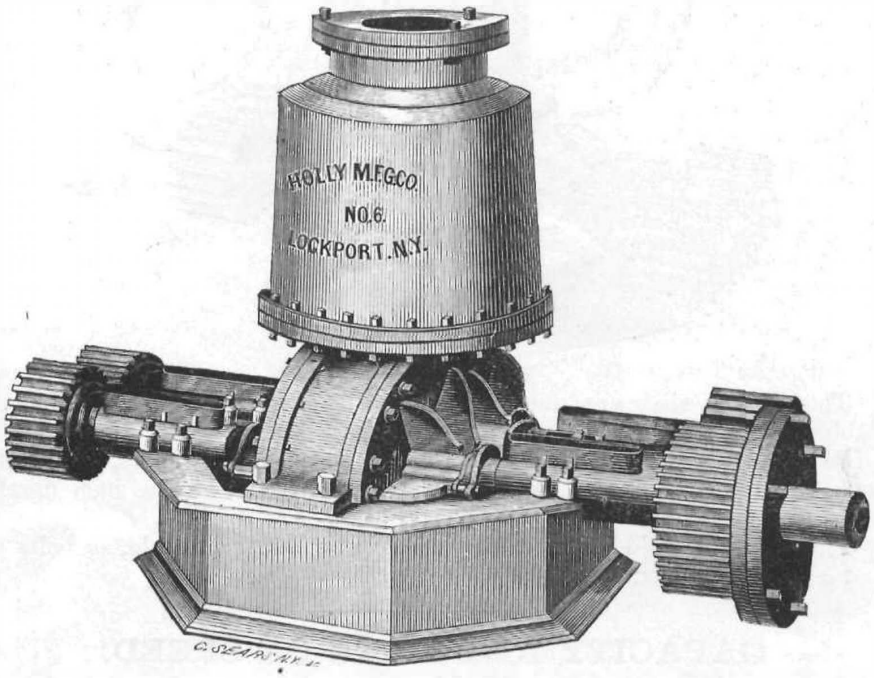
Fire Pumps should be driven by strong gearing, if possible, as belts may fail at a critical moment.

CAPACITY AND RATE OF SPEED.

No. of Streams.	Diameter of Streams.	Height of Streams.	Revolutions per Minute.		
			No. 3.	No. 4.	No. 5.
1	$\frac{7}{8}$	80	240	110	70
2	$\frac{7}{8}$	80	480	220	140
1	1	100	325	160	100
2	1	100	...	320	200
3	1	100	...	...	300
3	1	70	...	380	230
4	1	70	...	...	325
Price with Take-off and Safety Valve.....			$130	$175	$225
Extra for Bronze Journal Boxes.....			15	25	35

ROTARY POWER PUMPS.

Nos. 4, 5, 6, 7, 10, 14.



Referring to the Cut on the opposite page, we remark:

No. 4 is a favorite size for Mills, Factories, Breweries, Distilleries and Railroad Stations.

No. 5 is adapted for service under heavy pressure, and furnished with a *Suction Air Chamber.*

No. 6 is of much greater weight in proportion to its capacity than any other Pump in the list, and is recommended for hard service under great pressure. This size is also furnished with Suction Air Chambers.

No. 7 and larger are adapted to working under any pressure up to 200 pounds per square inch, and are furnished with Suction Air Chambers.

All of the above sizes are fitted for flanged pipe, but will be fitted for wrought iron pipe when so ordered, without extra charge.

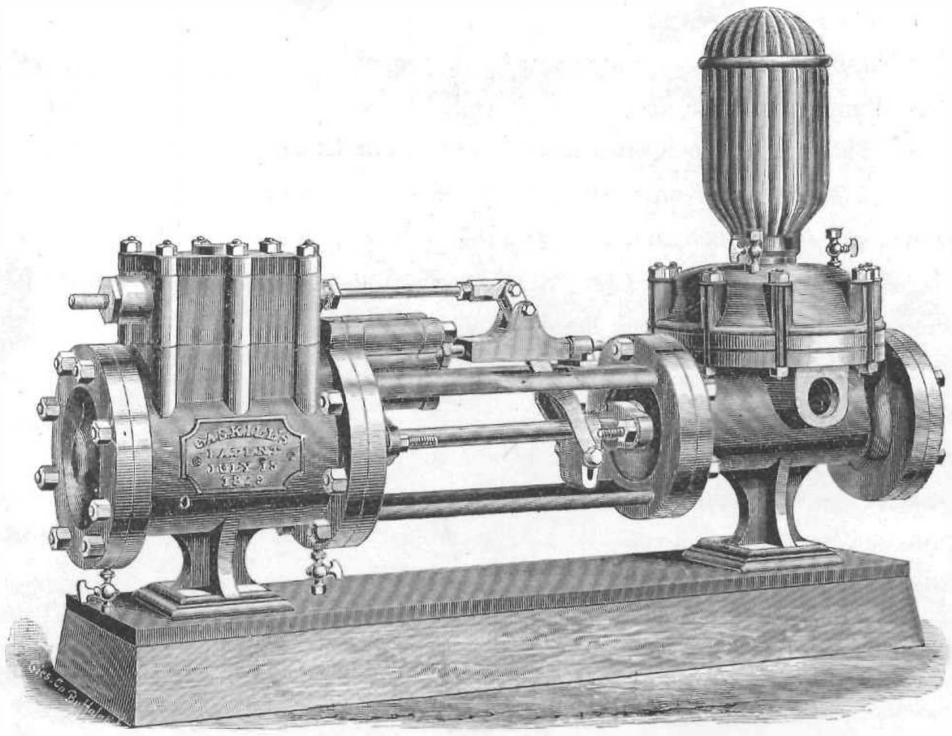
Number of Pump.....	4	5	6	7	10	14
Diameter of Pipe, in inches	4	5	6 or 8	8 or 10	10 or 12	11 or 14
Diam. of Pipe Flanges, in inches..	7⅛	8⅝	10 or 12¼	12¼ or 14⅜	14⅜ or 16⅝	16⅜ or 19¼
Price, with coupl'g for counter shaft	$150	225	$550 00	$600 00	$900 00	$1.200 00
Price, with Bronze Case and Cams.	325	450	1.000 00	1.200 00	Special.	Special.

CAPACITY

Revolutions per Minute.	Gallons Discharged per Minute.					
	No. 4.	No. 5.	No 6.	No. 7.	No. 10.	No. 14
1....	1.35....	2.30....	4.52....	6.96....	11.00....	16.00
20....	27.14....	46.15....	90.50....	136.36...	220.00....	320.00
30....	40.72....	69.23....	135.74....	209.04....	330.00....	480.00
40....	54.29....	92.31....	181.00....	278.72....	440.00....	640.00
60....	81.44....	138.46....	271.48....	418.08....	660.00....	960.00
80....	108.58....	184.61....	361.98....	557.44....	880.00	
100....	135.74....	230.76....	452.48....	696.80		
120....	162.88....	276.90....	542.98			
140....	190.04....	323.07....	633.46			
160....	217.16....	369.22....	723.97			
180....	244 32....	415.38				

H. F. GASKILL'S PATENT DIRECT ACTING STEAM PUMPS,

OF ALL SIZES, AND FOR EVERY IMAGINABLE SERVICE.



Our large experience in the manufacture of water-works pumping machinery, enables us to enter on the manufacture of direct acting Steam Pumps, with the assurance to our customers that the article will be in all respects as nearly a perfect machine as can be produced.

A large number of the Gaskill Steam Pumps have been manufactured and put on every variety of service during the past five years, and the demand for them has forced us into enlarging our facilities for their manufacture.

It is simple in construction, having a smaller number of moving parts than other steam pumps.

It will work equally well under a light or heavy pressure.

It will work at a higher rate of speed, with less noise than any other steam pump.

It is in fact suited for every variety of service.

All pumps are tested before leaving the factory under all possible speeds and pressures.

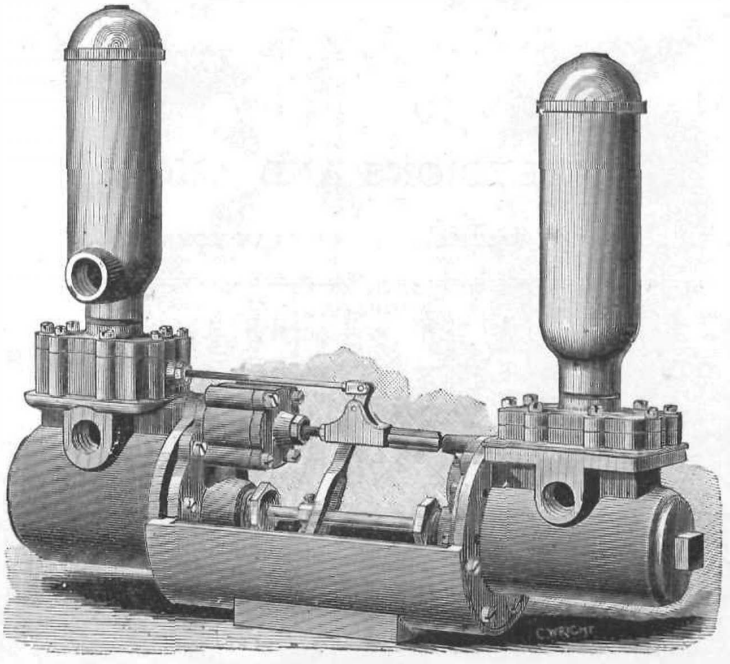
We are prepared at present to furnish the following sizes, and are constantly making additions to our patterns.

DIMENSIONS AND PRICES

OF GASKILL'S PATENT STEAM PUMP.

Diameter of Steam Cylinder.	Length of Stroke.	Diameter of Pump Cylinder.	Diameter of Steam Pipe.	Diameter of Exhaust Pipe.	Diameter of Suction Pipe.	Diameter of Discharge Pipe.	Gallons Discharged per Revolution.	Capacity per Minute in Gallons, at Ordinary Speed.			Price.
6	7	3½	1	1¼	1½	1½	.554	100	strokes	27.95	$225
7	10	3½	1¼	1½	2	2	.775	100	"	38.75	300
7	10	4	1¼	1½	2	2	1.03	100	"	51.5	315
7	10	4½	1¼	1½	2	2	1.323	100	"	66.05	325
8	10	3½	1¼	1½	2	2	.775	100	"	38.75	375
8	10	4	1¼	1½	2	2	1.03	100	"	51.5	387
8	10	4½	1¼	1½	2	2	1.323	100	"	66.5	400
10	12	5	1½	2	3	2½	1.948	100	"	97.4	425
10	12	6	1½	2	3	2½	2.845	100	"	142.25	450
10	12	7	1½	2	4	2½	3.906	100	"	195.3	460
10	12	8	1½	2	4	3½	5.1306	100	"	256.53	470
10	12	8½	1½	2	4	3½	5.8089	100	"	290.445	480
12	12	5	2	2½	5	4	1.948	100	"	97.4	490
12	12	6	2	2½	5	4	2.845	100	"	142.25	500
12	12	7	2	2½	5	4	3.906	100	"	195.3	525
12	12	8	2	2½	5	4	5.1306	100	"	256.53	535
12	12	8½	2	2½	5	4	5.8089	100	"	290.445	550
12	12	9	2	2½	5	4	6.517	100	"	325.85	575
14	20	7	2½	3	6	5	6.319	75	"	236.96	
14	20	8	2½	3	6	5	8.311	75	"	311.662	
14	20	9	2½	3	8	6	10.671	75	"	400.162	

H. F. GASKILL'S HYDRAULIC PUMPING ENGINE.



Patented July 15, 1879.

This engine is designed to do the labor of pumping the water for household uses, in cases when the cistern water is preferred to the public water supply, for toilet, potable and culinary purposes.

The engine is provided with two cylinders, one being a hydraulic engine, and the other a pump, both being supplied with air chambers. The water from the street mains is brought to the engine, and after having performed its work there, can be either emptied into the sewer, or used for irrigating lawns, or other uses that do not require to be raised to any considerable height. The pump takes water by suction from the house cistern, and delivers it into an elevated tank, usually located in the attic.

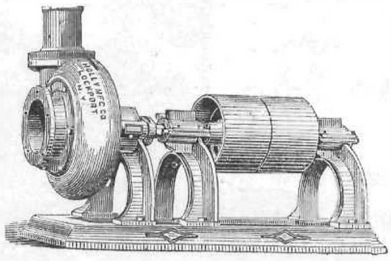
Both cylinders are lined with bronze, and in fact all working parts are of composition, and so arranged as to be easily accessible.

In order to avoid waste of water, it is best to have a valve in the supply pipe of the power cylinder, to be operated by a float in the tank, so that, as soon as the tank is filled, the engine will be stopped, and again started when the water in the tank is drawn down far enough for the float to operate the valve. The tank should in all cases be provided with an overflow pipe.

These engines are made with power cylinder, $2\frac{1}{2}$ inches diameter and $3\frac{1}{2}$ inches stroke, and with two sizes pump cylinders, viz: 2 inches and $1\frac{5}{8}$ inches diameter, adapting it to different water pressures.

PRICE, $35.00.

PULP PUMP.



Specially adapted for raising and forcing pulp, and highly recommended to Paper Manufacturers, who desire a good and efficient pump for that purpose.

It is so constructed that the discharge pipe can be placed in any position at right angles with the shaft, or changed from one point to another without delay or the displacement of any part of the Pump.

Suction fitted for 6 inch, and discharge for 4 inch flange pipe.

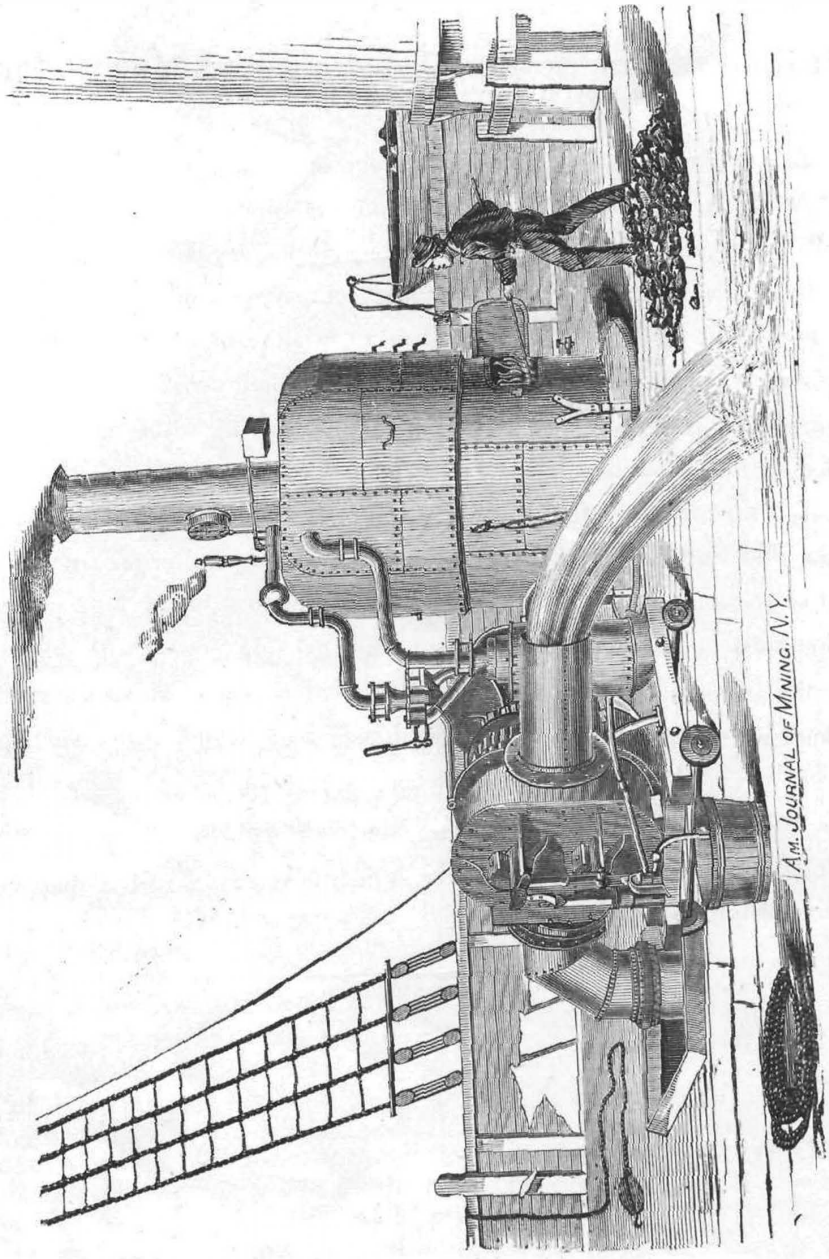
Diameter of Suction pipe flange, 10 inches.

" of Discharge " 7⅞ "

Pulleys, either 9 inches in diameter, 6 inch face, or 12 inches diameter, 5 inch face, as ordered.

PRICES,

On Iron Bases, with Pulleys and Cast Iron Fan,	$70 00
Same with Wrought Iron Fan,	80 00


Am. Journal of Mining, N.Y.

Holly's Steam Rotary Wrecking and Marine Pump.

This apparatus as illustrated on the opposite page, is a combination of B. Holly's Rotary Steam Engine and Pump, as constructed for raising sunken vessels and wrecks, pumping out coffer dams, locks, dry docks, &c.

Its decided advantages are simplicity, compactness, durability, convenience, and portableness. There are no valves to become obstructed, and the water ways are ample to admit and pass wet grain or small debris. The Engine and Pump can be reversed instantly to remove obstructions in the suction pipe, and started again without priming.

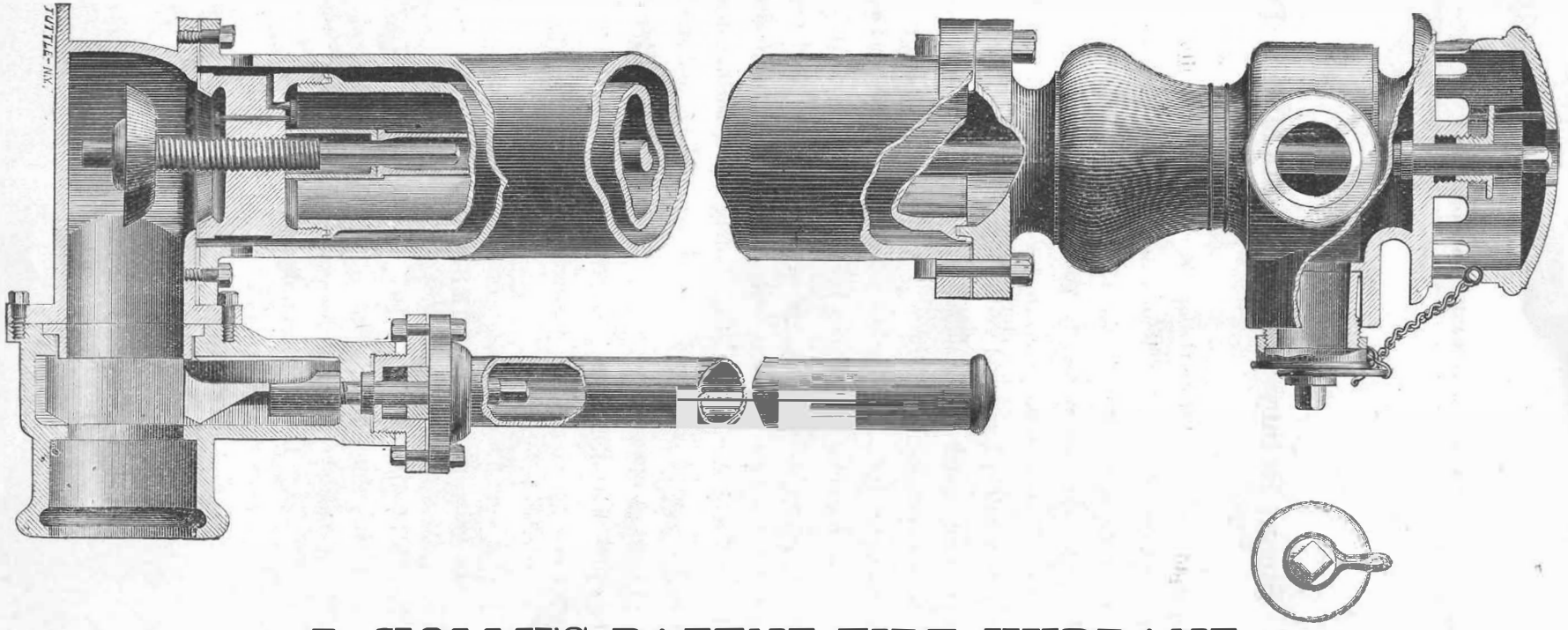
A complete outfit is furnished at the prices named below, and consists of Engine and Pump on trucks, Upright, or Locomotive Boiler on trucks, twenty-five feet suction pipe, including elbow and strainer, a boiler feed pump, with suction pipe and hose, heater, steam and exhaust pipes, with sleeves and universal joints, boiler jacket, smoke stack, safety valve, steam gauge, grates, ash pan, try cocks, blow off cocks, fire irons, set of wrenches and starting bars.

Several of these pumps are stationed at Buffalo, Detroit, Milwaukee, Chicago, Toronto, and other important ports on the upper and lower lakes, for wrecking purposes.

PRICES.

No. 1, 10 inch discharge,	$3,000 00
No. 2, 12 " "	4,500 00
No. 3, 14 " "	5,000 00

Less per cent. discount.



B. HOLLY'S PATENT FIRE HYDRANT.

B. HOLLY'S PATENT FIRE HYDRANT.

Prices, Including Frost Jacket.

Pattern Number	Number of Hose Attachments.	Diameter of Valve.	Diameter of Supply Pipe.	Without Independent Slide Valves.	With Independent Slide Valves.	With Gate at Base.
1	1	3 inches.	3 or 4 inch.	$30.00 each		
2	2	3 "	3 or 4 inch.	33.00 "	$43.00 each	
3	1	4 "	4 "	37.00 "		$8 Extra.
4	2	4 "	4 inches.	40.00 "	50.00 "	
5	2	5½ "	6 "	50.00 "	60.00 "	
6	3	5½ "	6 "	53.00 "	63.00 "	Special.
7	4	6 "	6 "	60.00 "	80.00 "	

All Hydrants coated inside with black varnish. Discount.....per cent.

The above prices are based upon the case being four foot long. For longer cases add 50 cents per foot.

Special discounts will be made for orders in car lots (40 to 50 hydrants), including delivery, if desired.

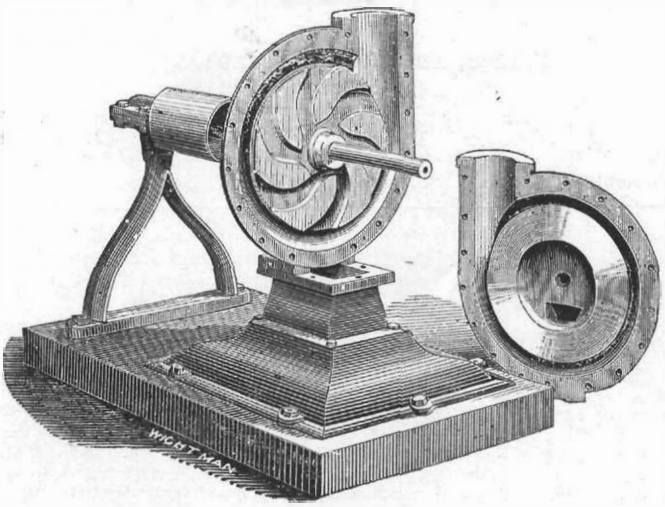
Numbers 1 and 3 (single nozzle hydrants) can be made with or without the Gate at base, as ordered.

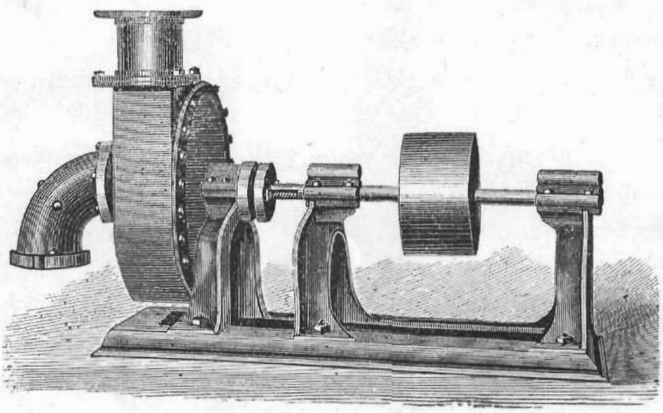
Nos. 2, 4, 5, 6 and 7 can be made with or without the Gate at base, or with or without the Independent Slide Valves before nozzles, as ordered.

Hydrants with take-offs for steamer suction, subject to special prices, which will be given upon application.

In ordering, parties will, if convenient, please send a hose coupling, from which we will fit hydrant take-offs, or at least name the standard of coupling in use.

HOLLY'S TURBINE CENTRIFUGAL PUMP.





HOLLY'S TURBINE CENTRIFUGAL PUMP,

Moves the water in regular curves, and is as nearly as possible frictionless. It is very simple in construction, and the best and cheapest pump of the kind in the market.

The first cut on the opposite page represents Nos. 2 and 6, and the second cut, Nos. 0 and 1.

Table, Showing Capacity, Diameter of Suction and Discharge, and Revolutions per Minute, Necessary to Raise Water to Various Heights.

SIZE OF PUMP.	Capacity per Minute.	Diameter of Dis. Pipe.	Diameter of Suc. Pipe.	Revolutions per Minute Necessary to Raise Water.													
	gal	inch	inch	4 feet	6 feet	9 feet	12 feet	16 feet	20 feet	25 feet	30 feet	36 feet	40 feet	50 feet	60 feet	75 feet	80 feet
No. 1.....	40	1¼	2	625	742	865	980	120	1209	1359	1	571	60	1700	1850	2000	2230	2310
No. 2.....	120	2	3	579	675	800	926	1048	1260	1300	1400	1530	1674	1814	1963	2122	2270	
No. 4.....	600	4	5	368	360	420	482	540	600	659	708	770	812	890	975	1080	1110	
No. 6.....	1000	6	6	279	326	390	445	508	561	620	675	735	800	868	924	984	1050	

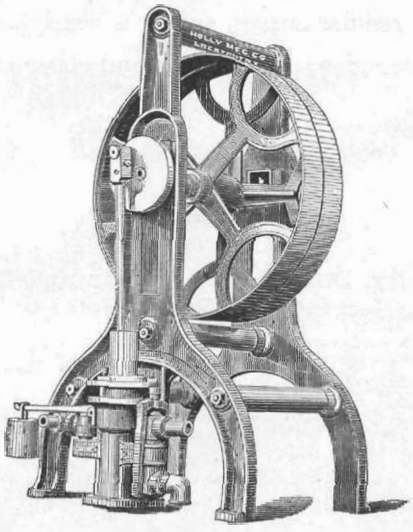
Prices, Including Foot Valve.

No. 1, 1¼	inch	discharge,	$ 30 00
No. 2, 2	"	"	50 00
No. 4, 4	"	"	100 00
No. 6, 6	"	"	150 00

DIRECTIONS FOR SETTING.

The Pump should be placed as near the water level as possible, or below it if convenient, but never more than twenty feet above. Secure the Pump by means of bolts or screws through the base, care being taken that the foundation is perfectly true, and that, when in place, the shaft is perfectly free. The stuffing box should be carefully packed with hemp, thoroughly saturated with tallow. The foot valve must be connected to the lower end of the suction pipe. We would recommend that the *discharge* pipe be at least four feet long when water is to be *drawn* any distance. Before starting it, fill the Pump and pipe with water through the discharge.

PRESSURE PUMP.



On Iron Frame, with Safety Valve, and Tight and Loose Pulleys.

Intended for all manufacturing purposes requiring high pressure. Will pump hot or cold water. Is extensively used for feeding steam boilers and bleaches. Fitted with metallic valves, valve seat and plunger. The valve gear can be removed for repairs or adjustment in a few moments, without disturbing the suction or discharge pipes.

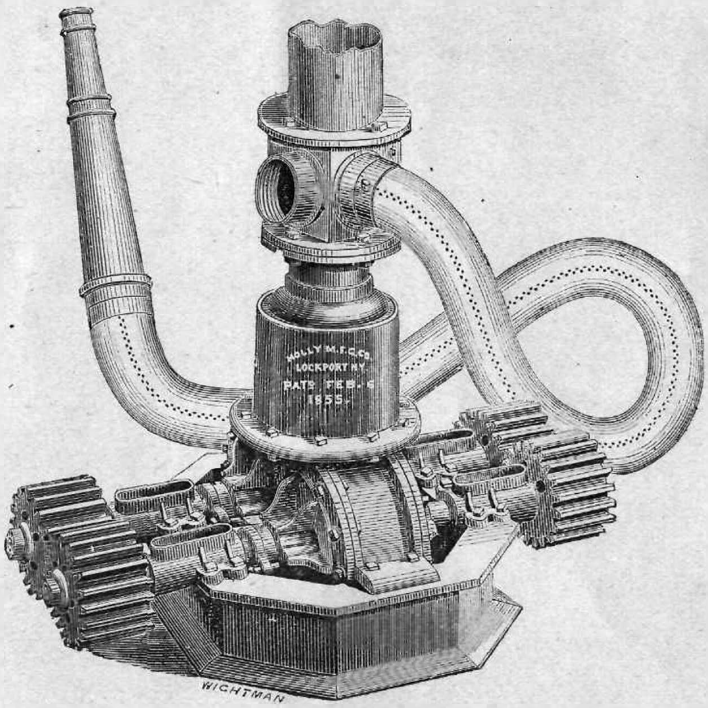
The Pump as illustrated and furnished, is complete, ready for pipe connections and belt, and may be set in any convenient place.

No. 1 occupies floor space of 1 ft. 10 in. x 1 ft. 8 in.
" 2 " " " 2 ft. 4 in. x 1 ft. 8 in.
" 3 " " " 2 ft. 10 in. x 2 ft. 6 in.
" 4 " " " 3 ft. 1 in. x 2 ft. 6 in.

PRICES.

No. 1, one cylinder,	2½	inches diameter,	3½	inch stroke,				$ 70 00
No. 2, two "	2½	" "	3½	" "				85 00
No. 3, one "	3	" "	6	" "				135 00
No. 4, two "	3	" "	6	" "				170 00

☞ Without Safety Valve, each size, $10.00 less.



36.

The Holly Manufacturing Co.

Builders of the Holly System of Water Works

and manufacturers of the

Gaskill Pumping Engines.

S. S. Flagler, Prest.
C. H. Aldreth, Secretary.
H. H. Flagler, Treasurer.
Frank W. Holly, Engineer & Supt.
L. L. Chadwick, Auditor & Purchasing Agt.

Please address
all business communications
to the Company.

Chicago, Ills. Office.
Room 301 Home Insurance Bld.
Cor. La Salle & Adams Sts.

New York City Office.
Room 2, 45 Broadway.

Portland, Ore. Office.
315 Twelfth St.

Lockport, N.Y.

Octo. 22nd, 1892.

Wm. Jenks Fell,

Frankland, Del.

Dear Sir:-

Your favor of the 18th inst. is received, and in reply to your inquiries we would refer you to page 11 of our rotary pump catalogue, copy of which we send you today, from which table we think you will be able to obtain all the information regarding speed of pump that you desire The pump you have is size No. 4.

Yours truly,
Holly M'f'g Co.
Frank W. Holly.
Engineer & Supt.