

BUFFALO FORGE COMPANY

BUFFALO, N. Y., U. S. A.

Manufacturers of Blowers and Forges

Cable Address
"FORGE" Buffalo
Iron Age Code on page 8

Products

**FORGE BLOWERS
FORGES
DUPLEX STEAM PUMPS
CENTRIFUGAL PUMPS
PUNCHING, SHEARING AND
CUTTING MACHINES
DRILLING MACHINES, VER-
TICAL AND BENCH TYPES**

**HEATING AND VENTILATING
SYSTEMS
EXHAUST AND VENTILAT-
ING FANS
PRESSURE BLOWERS
VOLUME BLOWERS
AIR WASHING MACHINES**

Experience

The Buffalo Forge Company placed its forges and fans on the market over forty years ago. Careful scientific experimental work and the acquirement of that skill which comes only from long years of experience have enabled it to develop a line of products that is recognized all over the world as standard equipment.

The Company manufactures other types and sizes of equipment besides those listed here and will be glad to furnish information and prices upon application.

Plant

The three factories of this Company are located at Buffalo, N. Y., North Tonawanda, N. Y., and Kitchener, Ontario, Canada. Modern equipment and well-lighted buildings assist materially in producing apparatus that is accurate, well-assembled and free from defects. First class raw materials and conscientious workmanship insure the maintenance of a standard consistent with the "Buffalo" reputation for high quality.

Export Orders

This Company has carried on a large export business for thirty-five years. Careful attention is given to the customers' instructions and prompt shipment of most orders is possible owing to a large stock of standard machines. The experience gained in packing export orders insures proper boxing.

No. D200 Silent Blower

This is a quiet and smooth running hand blower for blowing forge fires. It can be arranged for any hearth or forge, whether brick or iron.

It is an exceptionally serviceable blower with ball bearings and a volute or snail shell type of fan case. The gear case is completely enclosed. The gears are of the helical type, such as are used on all high speed machinery. All parts are protected from dust. End thrust is taken up by special end thrust bearings.

Furnished on either legs or pedestal at the same price.



FIG. 1. SILENT BLOWER NO. D200

TABLE I. SPECIFICATIONS—SILENT BLOWER

No.	Fan Diameter in. (mm.)	Weight with Tuyere lb. (kg.)	Weight without Tuyere lb. (kg.)	Code Word
D200	12 (305)	160 (73)	100 (45)	SILOS
D200	14 (356)	165 (75)	105 (48)	SILAM
D200	16 (406)	170 (77)	110 (50)	SILER

No. D210 Rivet Forge

This forge has a heavy round steel plate fire pan securely riveted, regularly mounted on four substantial 3/4 in. (19 mm.) steel pipe legs securely braced.

It occupies small space and can be readily taken apart and moved from place to place.

Regularly equipped with detachable windshield and No. D200 Silent Blower, with 12 in. (305 mm.) fan.

TABLE II. SPECIFICATIONS—RIVET FORGE

No.	Diam. of Fire Pan in. (mm.)	Diam. of Fan Case in. (mm.)	Weight lb. (kg.)	Code Word
D210	18 (457)	12 (305)	115 (52)	RIVOK
D211	22 (559)	12 (305)	120 (54)	RIVIN
D212	24 (610)	12 (305)	130 (59)	RIVUL



FIG. 2. RIVET FORGE NO. D210

Steel Forge No. D230

This is used extensively by contractors, street car lines, tank boilermakers, bridge builders, miners, shipbuilders, etc., for outdoor use. Equipped and furnished with or without tank.

TABLE III. SPECIFICATIONS—STEEL FORGE*

No.	Hearth in. (mm.)	Weight lb. (kg.)	Code Word
D230	24x24 (610x610)	225 (102)	STENT
D230-H	24x24 (610x610)	230 (104)	STEMP
D231	30x30 (762x762)	260 (118)	STERK
D231-H	30x30 (762x762)	270 (122)	STELM

*Furnished with or without tank. "H" types have a half hood instead of a windshield.



FIG. 3. MACHINISTS FORGE NO. D230

Standard Blacksmith Forge No. D243-H

This forge is recommended for use by blacksmiths and contractors, and in garages or other places where a variety of work is to be done. Equipped with Buffalo No. D200 14 in. (356 mm.) Silent Blower. Furnished without tank unless specified. Hearth, 28 x 40 in. (711 x 1016 mm.) Fan, 14 in. (356 mm.) Weight, 350 lbs. (159 kg.) Code word: CLARK.

This forge can also be had in other sizes if desired. 14 in. (356 mm.) fans are recommended, although 12 in. (305 mm.) or 16 in. (406 mm.) fans can be furnished.



FIG. 4. STANDARD BLACKSMITH FORGE NO. D243-H

"Climax" Geared Blacksmith Blower No. D700

This is built to meet a demand for a lower priced blower than the well-known Buffalo No. D200 Silent Blower.

The gears are machine cut and consist of two spur gear wheels and two helical gear wheels properly proportioned to drive the fan 1800 r.p.m. with the crank turning at a very moderate speed. The fan case is 12 in. (305 mm.) in diameter and is pear-shaped so that the crank can be turned forward or backward with equally good results. The high speed fan pinion runs in a bath of oil, and lubricates all other working parts by splashing. Furnished complete as shown in Fig. 5.



FIG. 5. "CLIMAX" GEARED BLACKSMITH BLOWER NO. D700

TABLE IV. SPECIFICATIONS—"CLIMAX" GEARED BLACKSMITH BLOWER

No.	Diameter of Fan in. (mm.)	Mounted on	Shipping Weight lb. (kg.)	Code Word
"Climax" DP	12 (305)	Pedestal	130 (59)	CLINT
"Climax" DL	12 (305)	Three Legs	110 (50)	CLISK

"Climax" Cast Iron Rivet Forge No. D722

The "Climax" No. D722 is a very popular, light repair forge. It has a round cast iron 22 in. (56 cm.) hearth and flat round tuyere, and mounted on four steel pipe legs.

The blower, when mounted on the forge, is so arranged that it can be instantly changed from right to left hand drive. Weight 150 lb. (68 kg.). Code word: CLASP.



FIG. 6. "CLIMAX" CAST IRON RIVET FORGING NO. D722

Cast Iron Forge No. D742-H

This is a substantial low-priced forge suited especially to the needs of the farmer or mechanic who desires an up-to-date forge.

Furnished with or without tank.

No. D742. Hearth, 25x36 in. (635x914 mm.); windshield fan, 12 in. (305 mm.); weight, 205 lb. (93 kg.). Code word: CLAWP.



FIG. 7. CAST IRON FORGE NO. D742-H

Variable Speed Electric Blowers No. D2-E

These small blowers, while designed primarily for forge fires, are used extensively for blowing small furnaces, church organs, etc.

The motor is of such design that it will operate efficiently and satisfactorily on any circuit, either direct or alternating current, single phase, 25, 40 or 60-cycle. Code word: CATCH.



FIG. 8. VARIABLE SPEED ELECTRIC BLOWER NO. D2-E

"Standard" Lever Forges Nos. D1 and D3

The "Standard" No. D3 is especially suitable for use in boiler shops, by bridge and shipbuilders, railroad contractors and for general outdoor work. With sufficient capacity to keep several gangs of riveters busy, it is still a light portable forge, strong enough to withstand a large amount of hard usage.

No. D1 is the same forge as No. D3 shown above but has a half-hood instead of a windshield. Code word: for No. D1, CASEK; for No. D3, CASOL.



FIG. 9. STANDARD LEVER TYPE FORGE NOS. D1 AND D3

Agricultural Forges Nos. D161 and D161-H

This forge is suited particularly for light repair work on farms, plantations, etc. It is constructed with deep and strong hearth and lever-operated steel fan.

No. D161-H is the same as No. D161 except that it has a half-hood instead of a windshield. Code word: for No. D161, CRAGS; for No. D161-H, CRAFT.

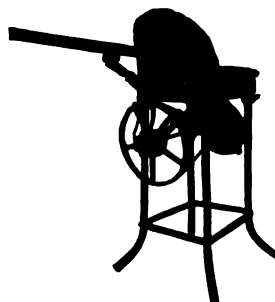


FIG. 10. AGRICULTURAL FORGE NO. D161

Buffalo Stationary Down Draft Forges

The "Down Draft" system has permanent underground blast and exhaust connections, instead of the customary short-lived and cumbersome overhead hoods and piping. This system was originated and patented by the Buffalo Forge Company, and its advantages have gained it world-wide recognition.

It has been adopted by the governments of Brazil, Italy, France, Argentine, Cuba and many other foreign countries; by 90 per cent. of all the schools and colleges of the United States in which forge practice is taught, and by a considerable number of large railroad companies and industrial establishments the world over.

The underground piping, either of concrete reinforced with galvanized iron forms or of tile, is indestructible. Overhead piping, usually of sheet metal, is not only subject to frequent renewals, but also obstructs valuable space and light. It is a serious obstruction when handling heavy work.

The down draft system also ventilates the shop. A sufficient quantity of air from the shop is drawn into the down draft hoods, together with the smoke, soot and gases, to create a proper circulation of air. This keeps the forge shop air pure and clear, and reduces its temperature materially. A cool shop in summer is thus assured.

FORGE No. D28-D is built of cast iron, carefully reinforced to resist rough usage. The blast gate affords close regulation of the fire.

It is a good heavy forge for heavy blacksmith and wagon work, is also used as a demonstrating forge in manual training schools. Weight 530 lbs. (240 kg.). Code word: CATER.

Shipped with tank unless otherwise specified.



FIG. 11. STATIONARY DOWN DRAFT FORGE NO. D28-D

FORGES Nos. D85-D and D86-D are built of heavy rolled steel plate, carefully strengthened and stiffened throughout. The edges are reinforced. Close regulation of the fire is given by the blast gate. Code word: CAVEL.

Shipped with water tank unless otherwise specified.



FIG. 12. STATIONARY DOWN DRAFT FORGE NO. D85-D

FORGE No. D94-D is built entirely of cast iron. The edges are wide and possess the strength necessary for any service. It is equal to the needs of the largest shop. Draft hood is adjustable by means of a lever gear to any position at the fire, according to its condition and the needs of the work. By this means, all smoke, gases and fumes generated by the fire are carried away. The forge shop atmosphere is always pure and clear. Code word: CAMOS.



FIG. 13. STATIONARY DOWN DRAFT FORGE NO. D94-D

The "Armor Plate" Line

Buffalo "Armor Plate" punches and shears are built in a large variety of styles and sizes for a variety of purposes.

Each machine in the Buffalo "Armor Plate" line is constructed of steel plates having a tensile strength of 75,000 lb. per sq. in. (5273 kg./cm²) or about seven and a half times that of cast iron. It weighs only one-third as much as a cast iron machine of the same capacity. This is of vital importance in considering freight weights for foreign shipments.

The Buffalo line of machines was developed to meet conditions growing out of our extensive use of wrought iron, steel, and sheet metal. While primarily built for our own use, these machines have proved so effective and satisfactory that we are now offering them to the trade generally.

"Universal" Slitting Shear Punch and Bar Cutter

The Buffalo "Universal" is really three machines in one. Three distinct operations can be performed without in any

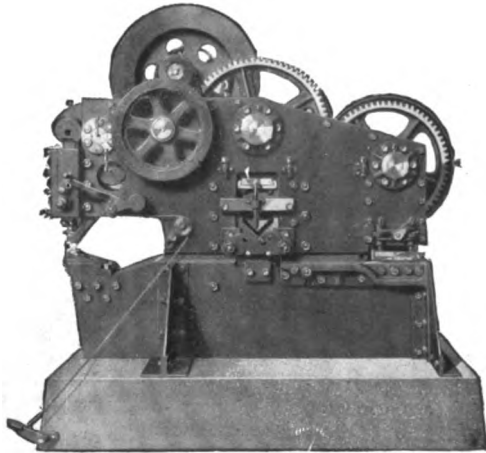


FIG. 14. "UNIVERSAL" SLITTING SHEAR, PUNCH, AND BAR CUTTER NO. D25-U

way interfering with each other. It punches sheets, channels, beams, etc., cuts angles, tees (square and mitre), squares and rounds, and, by means of special knives, cuts channels, beams and other rolled sections.

The shear will handle plates of any width, or length, and flats.

Since Buffalo machines are compact and can be either belt or motor driven, they form a very desirable unit in any shop.

"Armor Plate" Bar Cutter, No. D10

For cutting concrete-reinforcing bars. Cuts 1 in. (25 mm.) twisted or square bars, 1 1/4 in. (29 mm.) round bars, and 3.4-lb. per ft. (5 kg./m.) "Johnson" bars.

The great capacity of this small and light machine is obtained by the steel frame construction of our well known "Armor Plate" brand, the tensile strength of which is six to eight times greater than that of cast iron.

It will cut twisted and straight bars of any size up to its full capacity. The stripper in front prevents binding of the bars, and the roller keeps the bars from sliding directly over the knives, which are thus prevented from becoming dull. The leverage is arranged with a segment. By stepping on the treadle, the segment is allowed to fall back into place after cutting, making machine ready for a new cut without delay. The handiest, strongest, lightest machine made for the purpose. Weight: only 300 lb. (136 kg.). Code word: CARIS.



FIG. 15. "ARMOR PLATE" BAR CUTTER NO. D10.

Combination "Armor Plate" Punch and Shear

A most dependable tool, which will make clean, accurate cuts to its full capacity. The strippers are adjustable to prevent binding of the stock when the cutter leaves the metal. A twin-socket lever, operating both punch and shear, is worked from one side. Its powerful leverage makes operation easy on all work. Operation is by either hand or power.



FIG. 16. COMBINATION "ARMOR PLATE" PUNCH AND SHEAR

TABLE V. SPECIFICATIONS—COMBINATION "ARMOR PLATE" PUNCH AND SHEAR

No.	Punches in. (mm.)	Cuts		Punches Furnished in. (mm.)	Throat Depth in. (mm.)	Weight Boxed lb. (kg.)	Code Word
		Rounds in. (mm.)	Flats in. (mm.)				
D2-B	1 1/2 x 1 1/2 (6x6)	5/8 (16)	2 x 1/2 (51x8)	1/2, 3/4 & 1 (3; 5 & 6)	3 3/4 (95)	123 (56)	ARMOS
D3-B	2 x 3 (10x10)	3/4 (19)	3 1/2 (76x13)	1/2, 3/4 & 1 (3; 5 & 6)	4 (102)	215 (98)	ARMAK
D4-B	1 1/2 x 3 (13x13)	1 (25)	2 x 3/2 (51x16)	1/2, 3/4 & 1 (3; 5 & 6)	5 1/4 (133)	400 (181)	ARMUN

TABLE VI. SPECIFICATIONS—"UNIVERSAL" SLITTING SHEAR, PUNCH, AND BAR CUTTER

	D23-U	D24-U	D25-U	D26-U	D27-U	D28-U	D29-U
(1) Shear:							
(2) Plates.....in. (mm.)	3/4 (10)	1 1/2 (13)	5/8 (16)	3/4 (19)	1 (25)	1 1/4 (32)	1 1/2 (38)
(3) Flats.....in. (mm.)	2 x 1 1/2 (51x13)	2 1/2 x 3/4 (60x16)	3 x 1/2 (76x19)	3 x 1 (76x25)	4 1/2 x 1 3/8 (114x35)	5 x 1 5/8 (127x41)	6 x 2 (152x51)
(4) Special Knives.....Flats in. (mm.)	2 x 1 1/2 (51x13)	2 x 3/8 (51x16)	2 1/2 x 3/4 (64x19)	2 1/2 x 1 (70x25)	3 1/2 x 1 3/8 (89x35)	4 x 1 1/2 (102x38)	5 x 2 (127x51)
(5) Length knives.....Flats in. (mm.)	4 x 3/4 (102x5)	5 x 1/4 (127x6)	6 x 1/4 (152x6)	7 x 1/4 (178x8)	11 x 3/8 (279x10)	14 x 1/2 (356x13)	18 x 3/2 (457x16)
(6) No. of strokes.....in. (mm.)	6 (152)	7 (178)	8 (203)	10 (254)	13 (330)	16 (406)	20 (508)
(7) Bar Cutter:							
(8) Angle—square.....in. (mm.)	2 1/2 x 1 1/2 (64x8)	3 x 1 1/2 (76x11)	4 x 1 1/2 (102x13)	4 1/2 x 1 1/2 (114x14)	6 x 1 1/2 (152x19)	7 x 3/4 (178x19)	8 x 7/8 (203x22)
(9) Angle—45 degree mitre.....in. (mm.)	2 x 1 1/2 (51x6)	2 1/2 x 3/4 (64x8)	3 1/2 x 3/4 (89x10)	4 1/2 x 3/4 (114x13)	6 x 3/4 (152x19)	7 x 3/4 (178x19)	8 x 3/4 (203x19)
(10) T-bar.....in. (mm.)	2 1/2 x 1 1/2 (64x6)	3 x 3/8 (76x10)	3 1/2 x 3/8 (89x10)	4 1/2 x 3/2 (114x13)	5 x 3/8 (127x16)	6 x 3/4 (152x19)	8 x 3/4 (203x19)
(11) Round bar.....in. (mm.)	1 (25)	1 1/4 (32)	1 1/2 (38)	1 3/4 (48)	2 1/4 (64)	3 (76)	3 3/4 (95)
(12) Square bar.....in. (mm.)	7/8 (22)	1 1/8 (29)	1 1/4 (32)	1 3/8 (41)	2 1/8 (54)	2 5/8 (67)	3 1/4 (83)
(13) I-beam.....in.-lb. (mm.-kg.)	4-7 1/2 (102-3,4)	5-9 3/4 (127-4,4)	6-12 1/4 (152-5,6)	8-18 (203-8,2)	10-25 (254-11,3)	12-31 1/2 (305-14,3)	15-45 (381-20,4)
(14) Channel.....in.-lb. (mm.-kg.)	4-7 1/4 (102-3,3)	5-9 (127-4,1)	6-10 1/2 (152-4,8)	8-16 1/2 (203-7,4)	10-25 (254-11,3)	12-30 (305-13,6)	15-40 (381-18,1)
(15) No. of strokes.....	35	28	25	20	15	12	10
(16) Punch:							
(17) Diameter and thickness.....in. (mm.)	5/8 x 3/8 (16x10)	3/4 x 1/2 (19x13)	1 x 5/8 (25x16)	1 1/8 x 3/4 (29x19)	1 3/8 x 1 (35x25)	1 1/2 x 1 1/4 (38x32)	1 3/4 x 1 1/2 (44x38)
(18) Height stroke.....in. (mm.)	3/4 (19)	7/8 (22)	1 (25)	1 1/4 (32)	1 1/2 (38)	1 7/8 (48)	2 1/4 (57)
(19) No. strokes.....	35	28	25	20	15	12	10
(20) Power-belt drive.....h.p.	2	3	5	7 1/2	12	20	27
(21) D. C. motor.....h.p.	3	5	7 1/2	10	15	25	35
(22) Sped.....r.p.m.	350	350	350	325	325	300	275
(23) Pulleys.....in. (mm.)	10x3 (254x76)	12x4 (305x102)	16x3 1/2 (406x89)	20x4 (508x102)	26x5 (660x127)	30x6 (762x152)	36x8 (914x203)
(24) Depth of throat.....in. (mm.)	16 (406)	20 (508)	20 (508)	24 (610)	30 (762)	30 (762)	36 (914)
(25) Net weight.....lb. (kg.)	3000 (1350)	4000 (1800)	6000 (2700)	13000 (5900)	20000 (9100)	28500 (12950)	41000 (18600)
(26) Code Word.....	UNIRK	UNILT	UNIFS	UNOLD	UNIMP	UNIST	UNIZM

* Minimum depth of throat for punch end of Buffalo "Universal" machines. Any greater depth furnished if required.

Vertical Power Drilling Machine

This machine is designed to do accurate and efficient work.

The 20 in. (508 mm.) size has three power feeds and also hand and lever feeds; the 25 in. (635 mm.) size has eight speeds and four power feeds and also hand and lever feeds.

The drive can be instantly changed from plain to back geared without using wrench by disengaging knurled knob in the top gear and throwing in back gears by means of hand lever. A locking screw is provided to hold this in place.

An adjustable automatic trip throws out power feed instantly when piece has been drilled to required depth.

All bearings are split and adjustable for wear. Each

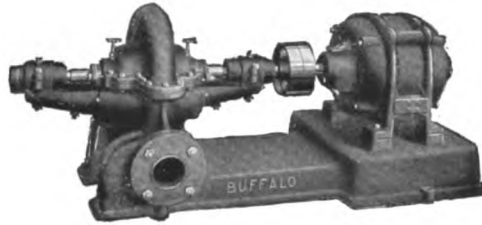


FIG. 17. CLASS "S" CENTRIFUGAL PUMP

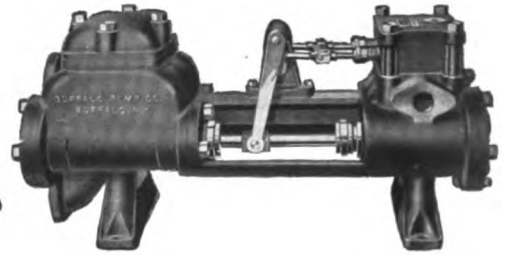


FIG. 18. DUPLEX STEAM PUMP

brass valves, bronze valve stems and brass valve springs. Code word: BRASK.

CLASS "S" CENTRIFUGAL PUMPS—Embody the latest developments in designs and construction. The casings are horizontally divided—simply remove the upper half and all the working parts are open for inspection or repair. It is not necessary to break piping connections. The impellers are of the double suction type, which practically eliminates thrust trouble. All sizes have ring oiled bearings. These pumps are suitable for heads up to 180 ft. (55 m.) and can be arranged for either pulley drive or direct connection to electric motor or steam turbine. Code word: BRALT.

Steel Pressure Blowers

These blowers are used for supplying blast to forge fires, cupolas and furnaces where pressures from 4 to 14 oz./sq. in. (13 to 45 mm. mercury) are required.

They have solid cast iron peripheral shells which absolutely prevent leakage. Removable cast iron side plates make the blast wheel and shaft easily accessible.



FIG. 19. 10-in. (254 mm.) DRILLING MACHINE, BENCH TYPE

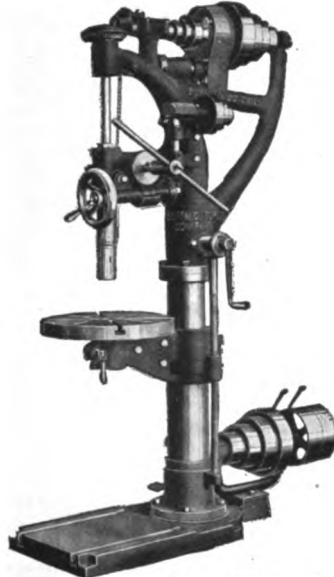


FIG. 20. 20-in. (508 mm.) DRILLING MACHINE, FLOOR TYPE

machine has a graduated and ground ball-bearing spindle, lever handle adjustable from 6 to 18 in. (152 to 457 mm.) and held in place by a tension spring, worm feed wheel that runs in oil and is latch-hinged to take up wear and extra heavy machine-cut gears. Large crown gears run in heavy bronze bushings and the screw that operates the table has ball thrust and is lathe turned. The table arm is drilled by machine itself. This insures accuracy. Base and table are T-slotted and planed.

TABLE VII. SPECIFICATIONS—VERTICAL POWER DRILLING MACHINES

(1) Size of Drilling Machine	10 in. (254 mm.)	20 in. (508 mm.)	25 in. (635 mm.)
(2) Height over all..... in. (mm.)	33½ (851)	74 (1880)	85 (2159)
(3) Maximum holes drilled..... in. (mm.)	1½ (38)	1½ (38)	1½ (38)
(4) Drills to center..... in. (mm.)	10 (254)	20 (508)	25 (635)
(5) Max. distance between base and spindle..... in. (mm.)	16 (406)	41½ (1054)	44½ (1127)
(6) Max. dist. between table and spindle..... in. (mm.)	9½ (248)	25½ (648)	31 (787)
(7) Travel of spindle..... in. (mm.)	3 (76)	8½ (216)	14½ (368)
(8) Size of table..... in. (mm.)	7x8 (178x203)	15½ (394)	21 (533)
(9) Size of tight and loose pulleys..... in. (mm.)	4x1½ (102x41)	8x3 (203x76)	10x3½ (254x79)
(10) Speed of drive pulleys..... r.p.m.	—	300	300
(11) Smallest diameter of cone pulley..... in. (mm.)	3 (76)	4 (102)	4 (102)
(12) Largest diameter of cone pulley..... in. (mm.)	4½ (114)	9 (229)	10 (254)
(13) Face of cone pulley..... in. (mm.)	1½ (41)	—	—
(14) Depth of cone pulley steps..... in. (mm.)	—	2½ (54)	3½ (79)
(15) Net weight..... lb. (kg.)	110 (50)	780 (355)	1250 (565)
(16) Code Word	DRIZM	DRISK	DRIPT

(17) Feeds of 25-in. (635 mm.) drill in. (mm.) 0.005-0.007-0.009-0.016-0.13-0.18-0.23-0.41
 *Bench type, Fig. 19. †Floor type, Fig. 20.

Buffalo Pumps

DUPLEX PISTON PACKED STEAM PUMPS—Are widely used for boiler feed and general service for pressures up to 150 lb./sq. in. (10.5 at.) (1 at.=1 kg./cm²). They will handle thick or thin, hot or cold liquids. Furnished either regular or brass fitted. Every pump has brass liners in the water cylinders which can be easily replaced in case of wear,



FIG. 21. STEEL PRESSURE BLOWER



FIG. 22. "B" VOLUME BLOWER

"B" Volume Blowers and Exhausters

These blowers and exhausters are especially suited for furnishing blast to forges, furnaces, organ blowers, etc., and also for ventilating toilets, removing fumes or gases, and removing dust and refuse from polishing wheels.

Standard blowers and exhausters are furnished with right hand or left hand bottom horizontal discharge. If a special discharge is desired, an extra ten per cent. will be charged.

TABLE VIII. SPECIFICATIONS—BLOWERS AND EXHAUSTERS

No.	Outlet Diameter—Outside		Code Word			
	Steel Pressure Blower	"B" Vol. Blower & Exhauster	Pressure Blower	"B" Vol. Blower		
	in.	mm.	in.	mm.		
D000	—	—	5½	130	—	VOTON
D1	3½	89	4¾	124	—	PARUM
D2	4	102	6¾	154	—	PABIL
D3	4½	121	7½	194	—	PALAS
D4	5	127	9	229	—	PATER
D5	5½	137	10½	270	—	PANEM
D6	6¼	159	11½	300	—	PAKAS
D7	7¼	184	14	356	—	PAMOR
D8	8¼	222	16½	416	—	PAVEL
D9	10	254	17½	454	—	PAXIT
D10	12¼	311	21	533	—	PARIN
D11	14½	368	24½	622	—	PADOM
D11½	16½	419	—	—	—	PAGIS
D12	18	457	—	—	—	PACOL

Buffalo Fan System of Heating and Ventilating

The Buffalo Fan System has successfully solved the question of heating and ventilating large buildings. The heated air is positively forced into the room in the exact quantity needed, so that the heat may be used to the best advantage.

The Buffalo System consists of a fan for moving the air (this can be either electrically or steam driven), a heater to warm the air, an air washing machine to clean the air, and a series of metallic or wooden ducts to distribute the air.

The air is drawn in from either the outside or the inside of the building and after passing through the washer and

heater, is forced by the fan through the distributing ducts. The temperature and quantity of air delivered to any portion of the building can be accurately controlled in the Buffalo Fan System.

The same system that heats in the winter will serve to cool in the summer by merely eliminating the heater and using the cooling action of the air washer.

Buffalo "Baby Conoidal" Fan

These are especially suited for all kinds of drying and cooling purposes, for supplying fresh cool air to offices, houses, staterooms, telephone booths, etc., and for exhausting smoke

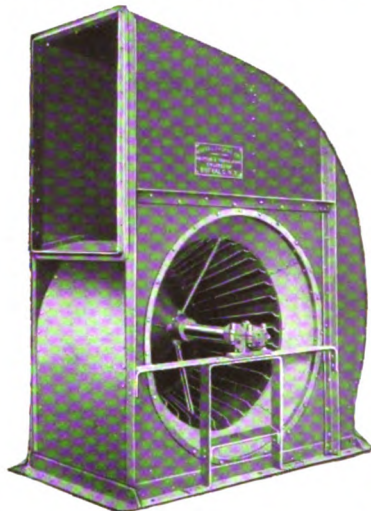


FIG. 23. "NIAGARA CONOIDAL" FAN (With Buffalo Pipe Coil Heater)

fumes and foul air from kitchens, restaurants, lavatories, etc. They are designed to furnish a large volume of air at relatively low pressures, with moderate speed.

The wheel is accurately balanced and is therefore smooth running and practically noiseless. The housing is of cast iron and can be swung into any position.

A cord with plug which can be attached to any lamp socket is furnished for the No. D3 and smaller sizes. Outfits are furnished with 110 or 220 volt d. c. motors, or 110 or 220 volt single phase, 60 cycle a. c. motors, as desired.



FIG. 24. "BABY CONOIDAL" FAN

TABLE IX. SPECIFICATIONS—"BABY CONOIDAL" FAN

Size	Capacity cu. ft./min. (m ³ /min.)	Power h.p.	Speed r.p.m.	Shipping Weight lb. (kg.)	Code Word
D1	90 (2.5)	1.30	1740	40 (18)	COLOS
D2	250 (7.1)	1/8	1740	55 (25)	COBIX
D3	325 (9.2)	1/8	1240	110 (50)	CORAN
D3	500 (14.2)	1/4	1740	115 (52)	COSUM



FIG. 25. PULLEY DISK FAN

Buffalo Pulley Disk Fan

This fan is a quiet, smooth-running fan, used for cooling workshops, loft buildings, restaurants, kitchens, and for carrying away smoke and fumes without the use of ducts. Can also be furnished with electric motor.

TABLE X. SPECIFICATIONS—PULLEY DISC FANS

No.	Size in. (mm.)	Normal Speed r.p.m.	Air Capacity cu. ft. min. (m ³ /min.)	Power h.p.	Net Weight lb. (kg.)	Code Word
D802	24 (610)	800	4100 (115)	0.24	100 (45)	DIRAK
D803	30 (762)	650	6500 (184)	0.40	170 (77)	DITIL
D804	36 (914)	525	9100 (258)	0.50	230 (104)	DIVAS
D805	42 (1067)	450	12300 (348)	0.70	325 (147)	DIMER
D806	48 (1219)	400	16300 (462)	0.95	445 (202)	DILUM
D807	54 (1372)	350	20400 (578)	1.20	560 (254)	DIDUR
D808	60 (1524)	320	25600 (725)	1.50	630 (286)	DIFIX
D809	72 (1829)	265	36600 (1036)	2.10	820 (372)	DIPUT
D810	84 (2134)	225	50500 (1430)	3.00	990 (449)	DIBOF

The "Carrier" Air Washing Machine

A great number of fan heating installations require air free from all dirt and dust. To meet this requirement, the "Carrier" Air Washing Machine shown below was designed. This washer consists of a bank of spray nozzles by means of which a curtain of water mist is formed through which the air to be cleaned must pass, and a series of eliminator plates, the surfaces of which are kept wet by a second set of nozzles placed above the plates. After passing through this spray, the dirt particles are washed into the tank by means of the film of water on the eliminator plates.

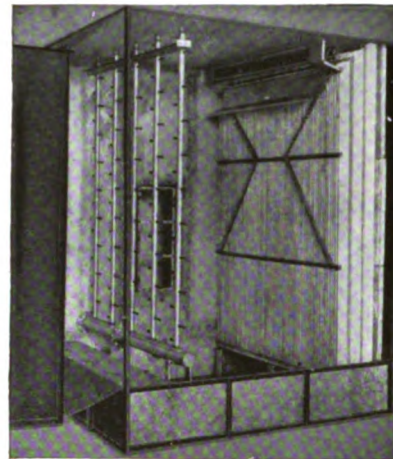


FIG. 26. "CARRIER" AIR WASHER (With Side Door Removed)

The "Carrier" Air Washer not only removes all traces of dirt, smoke, fumes and smell from the air but also cools the air and allows the moisture content to be accurately controlled. This control of the moisture content is found extremely useful in textile mills. In supplying clean air for generator cooling, the "Carrier" Air Washer is unsurpassed. Code Word: BRELF.

Standard Mill Exhausters

These machines are designed especially for conveying and moving shavings, sawdust, grain, cotton, dust, bark, etc.

They are built to withstand hard, continuous service and are reversible for any direction of discharge.



FIG. 27. STANDARD REVERSIBLE PLANING MILL EXHAUSTER

TABLE XI. SPECIFICATIONS—STANDARD MILL EXHAUSTERS

No.	Size of Fan		Outside Diameter of Inlet and Outlet		Net Weight		Code Word
	in.	mm.	in.	mm.	lb.	kg.	
D902	30	762	12	305	330	150	EXERC
D903	35	889	14	356	420	191	EXPON
D904	40	1016	16	406	600	272	EXTIN
D905	45	1143	18	457	800	363	EXORB
D906	50	1270	20	508	900	408	EXPUL
D907	55	1397	22	559	1200	544	EXENT
D908	60	1524	24	610	1600	726	EXOCT
D909	70	1778	28	711	2200	998	EXIMP
D910	80	2032	32	813	2800	1270	EXTER
D911	90	2286	36	914	4500	2041	EXURM