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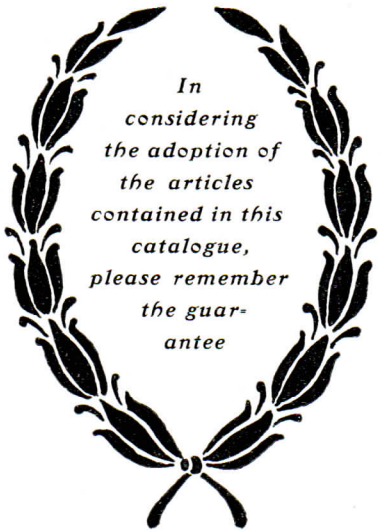
WRIGHT
Steam Specialties

Wright Manufacturing Company
Detroit, Mich., U. S. A.
Formerly of Cleveland, Ohio

THE WRIGHT
Steam Specialties



MANUFACTURED BY

WRIGHT MANUFACTURING COMPANY

55, 57 and 59 Woodbridge Street

DETROIT, MICH., U. S. A.

INTRODUCTORY

The Goods

ALL our goods are made on scientific principles, to correct proportions, and are made extra heavy to meet the requirements of modern high pressure practice.

They are fully fifty per cent., and in some cases, one hundred per cent. stronger than the older appliances for like purposes.

The prices are as low as consistent with first-class material and workmanship, and it is our aim to not only give the customer his money's worth in every instance, but to so please him that he will find pleasure in recommending our goods.

The Guarantee

Every article bearing our name is guaranteed as to material, workmanship, finish and operation, whether bought of us or any dealer.

WRIGHT MANUFACTURING CO.

SAFETY WATER COLUMNS

THEIR ECONOMIC VALUE

BEFORE pointing out the details of the superiority of The Wright Improved Safety Water Column, it is in order that we should point out the real economic value of the safety water column.

The name is, in a measure, misleading and is descriptive, to be sure, but the description is not complete. It would be equally proper to call them "economic water columns."

They not only protect life, but property, and bring about economic results that are not realized where they are not used.

They insure constant watchfulness and care on part of the attendants, by reason of the fact that that is the only way in which they can keep the whistle quiet. The whistle is for the proprietor, superintendent and engineer, not for the fireman.

This extra watchfulness reduces the danger to a minimum and at the same time insures economy of fuel, and obviates repairs and insures longer life of boilers.

All this economy and the safety as well, for that matter, is the natural result of keeping the water steady at the proper level.

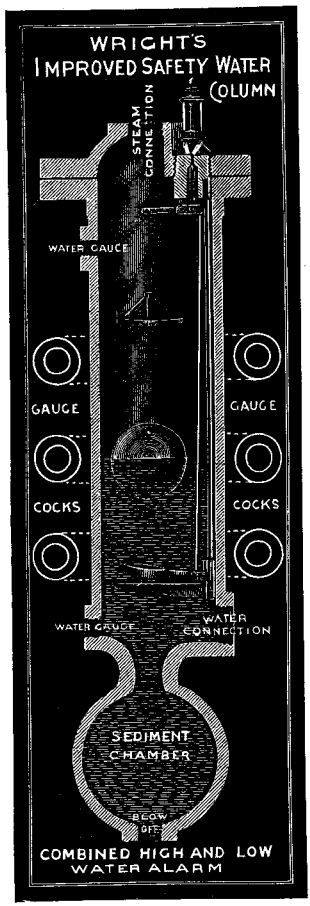
The saving amounts to more than the cost of the columns every year.

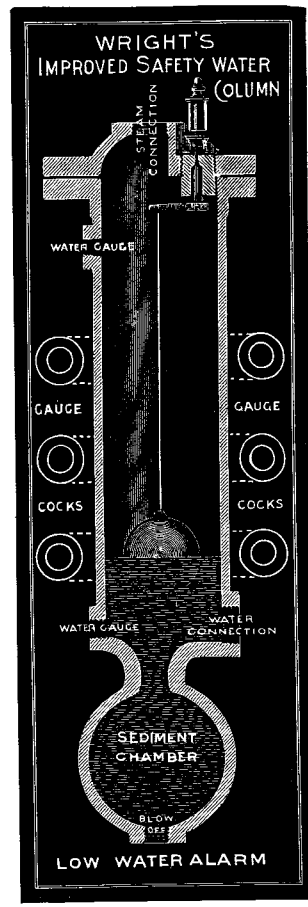
You are a business man—how many investments have you that pay over 100 per cent. per annum.

Wright Improved Safety Water Columns

THE IMPROVEMENTS

The superiority of the Wright Safety Water Columns will at once be recognized for the reasons stated below. All engineers and mechanics recognize the fact that there is much more likelihood of repairs to a column having two oblong floats with seams and two horizontal valves, than with a column with only one seamless round float and one vertical valve, and that the inconvenience and expense of making any repairs that may be necessary is reduced to a minimum when all the working parts are attached to the cap, as in the case of the Wright Column. Any repairs that may be necessary may be made to our columns by simply removing the bolts from the flanges when every part is not only accessible, but removable.





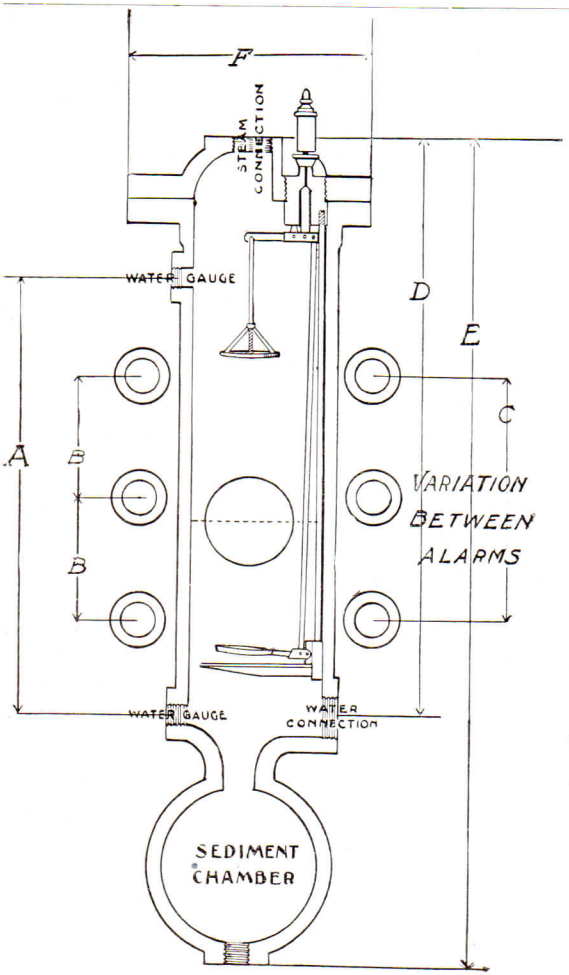
Obvious Superiority

There can be no doubt about the advantage of having all the working parts attached to the cap. Neither is there any question of the advantage of having valves placed vertically instead of horizontally, or of using one valve instead of two, nor can there be any doubt about the superiority of seamless round floats over oblong floats with seams and flat surfaces, for a sphere is the strongest possible form for a float.

Briefly, the improvements in our Columns are:

One vertical, instead of two horizontal, valves.
One seamless round float, instead of two oblong floats, with seams.
All parts attached to the cap.
Gauge Cocks on either side.
Extra heavy construction.

These points of superiority put the Wright Safety Water Column at the head of the list.



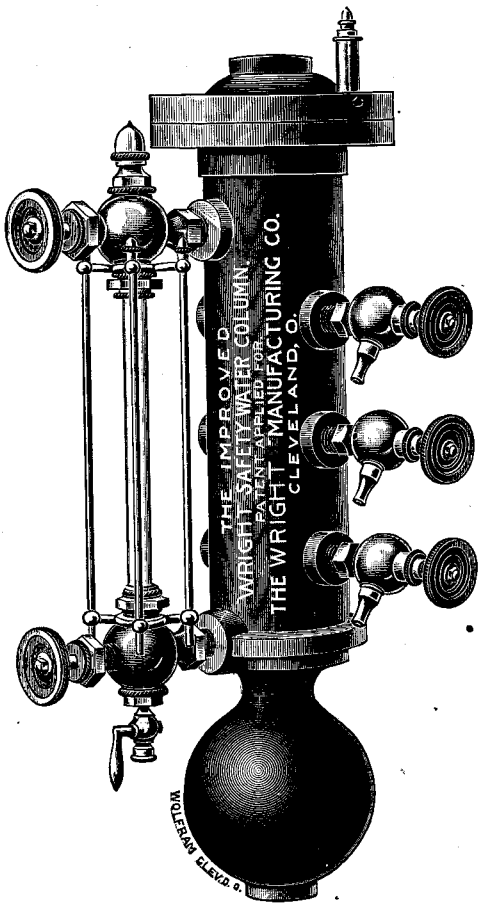
We present herewith, in condensed form, illustration showing the construction of the Wright Improved Safety Water Columns, including both the Low Water Alarm, and the Combined High and Low Water Alarm, illustrated on opposite page, and also give such details of construction and dimensions as will be needed in writing specifications, cutting material, etc.

DETAILED DIMENSIONS.

	SIZE OF COLUMN	A. Water Gauge Centers.	B. Gauge Cock Centers.	C. Variation between Alarms.	D. Center of Water Connection to top of Column.	E. Length over all.	F. Width of Flanges.	Thickness of Flanges.	Number and Size of Bolts.	Water Gauge and Gauge Cocks Tapped, Standard	Size of Water and Steam Connection.	Sediment Chamber Tapped.	List Price, Untrimmed.	SIZE OF COLUMN	
		In.	In.	In.	In.	In.	In.	In.			In.	In.			
Combined High and Low Water Alarms.	1	14	3	6	17	24¾	7	⅜	6–½	½	1	¾	$28 00	1	Combined High and Low Water Alarms.
	5	15	4	8	21	30	8½	1	6–⅝	¾	1¼	¾	30 00	5	
	7	18	6	12	24	33	9	1⅛	6–¾	¾	1½	¾	35 00	7	
	9	24	9	18	30	39	9	1¼	6–⅞	¾	1¾	¾	40 00	9	
	11	30	12	24	36	45	9	1⅜	6–1	¾	1½	¾	42 50	11	
	13	36	12	30	42	51	9	1½	6–1⅛	¾	1½	¾	45 00	13	
	15	42	12	36	48	57	9	1⅝	6–1¼	¾	1½	¾	50 00	15	
Low Water Alarms	2	14	3		17 1/8	24¾	7	⅜	6–½	½	1	¾	25 00	2	Low Water Alarms
	6	14	4		20	29	8½	1	6–⅝	¾	1¼	¾	28 00	6	
	8	18	6		24	33	9	1⅛	6–¾	¾	1½	¾	35 00	8	

The Columns are from 25 per cent. to 100 per cent. heavier than any other safety water column and are designed to meet the requirements of high pressure practice. They will all work at any pressure.

The Wright Improved Safety Water Column



LOW WATER ALARMS

HIGH WATER ALARMS

Combined High and Low Water Alarms

For Prices and Dimensions, see next Page.

Price List of the Wright Improved Safety Water Columns

Combined High and Low Water Alarms

Size of Column.	Kind and Size of Boiler.	Variation between Alarms.	List Price of Columns without Water Gauge and Gauge Cocks.	List Price of Water Gauge and Gauge Cocks.
1	36″ to 54″	6″	$28 00	$ † 7 00
5	56″ to 72″	8″	30 00	†10 00
7	Others determined by natural variation of water in boiler.	12″	35 00	†10 00
9		18″	40 00	¶15 00
11		24″	42 50	¶15 00
13		30″	45 00	¶*20 00
15	See Note.	36″	50 00	¶*20 00

General Dimensions in Inches

Steam and Water Connections.	Blow-off.	Water Gauge.	Gauge Glass.	Gauge Cocks. Centers.	Gauge Cocks. Size.	Center of Water Connection to Top of Column.	Diam. of Column.	Length over all.	Size of Column.
1	¾	½x14	⅝x12	3	½	17	4½	24¾	1
1¼	¾	¾x15	¾x13	4	¾	21	5	30	5
1½	¾	¾x18	¾x16	6	¾	24	5	33½	7
1½	1	¾x24	¾x22	9	¾	30	5	39	9
1½	1	¾x30	¾x28	12	¾	36	5	45	11
1½	1	¾x36	*¾x34	10	¾	42½	5	51	13
1½	1	¾x42	*¾x40	12	¾	48½	5	57	15

Low Water Alarms

Size of Column.	Kind and Size of Boiler.	Variation between Alarms.	List Price of Columns without Water Gauge and Gauge Cocks.	List Price of Water Gauge and Gauge Cocks.
2	36″ to 54″	....	$25 00	$ † 7 00
6	54″ to 72″	....	28 00	†10 00
8	Water Tube.	....	35 00	¶15 00

General Dimensions in Inches

Steam and Water Connections.	Blow-off.	Water Gauge.	Gauge Glass.	Gauge Cocks. Centers.	Gauge Cocks. Size.	Center of Water Connection to Top of Column.	Diam. of Column.	Length over all.	Size of Column.
1	¾	½x14	⅝x12	3	½	17	4½	24¾	2
1¼	¾	¾x15	¾x13	4	¾	20	5	29	6
1½	¾	¾x18	¾x16	6	¾	24	5	33	8

† Compression gauge cocks with stuffing box. ¶ Lever gauge cocks. * Two glasses joined at center with stuffing box. Four gauge cocks.

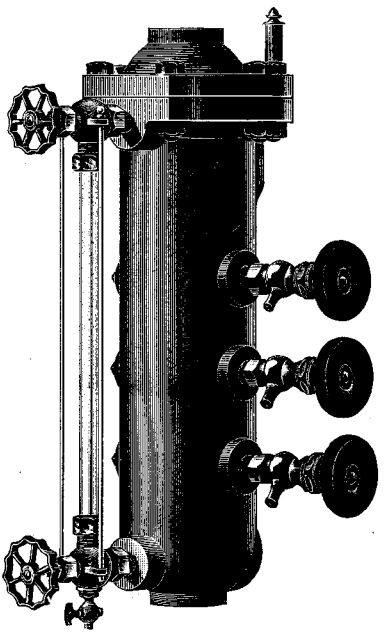
NOTE—The size of the Column is in all cases determined by the natural variation of the water in the boiler on which it is to be used. No mistake will be made ordinarily by selecting a Column having the extreme gauge cocks the same distance apart as on the Column used on the boiler on which it is to be used.

IMPORTANT All working parts are attached to the cap and are removed when the cap is removed. No expert help or special tools are needed to repair these columns.

Provision is made for gauge cocks on either side of all these columns. This does away with all trouble about right and left hand columns, and renders all stock available for filling orders and a comparatively small stock answers for quite a considerable demand.

Include the Wright Improved Safety Water Columns in all Boiler Specifications

The Victor Safety Water Column



Practically the only difference between the Victor and the Wright Safety Water Column is the sediment chamber. It is, however, somewhat lighter, and cheaper trimming is ordinarily used, but they are tapped with regular standard threads and any kind of water gauges and gauge cocks may be used.

The List is the same as on the Wright Column

The Victor Junior Special Safety Water Column

We make this style with low water alarm only. Has two gauge cocks, no sediment chamber. This pattern column is designed especially for small portable and traction engine boilers, also vertical boilers.

PRICE LIST AND DIMENSIONS.

Water Gauge Centers	Gauge Cock Centers	Length over all	Width of Flanges	Thickness of Flanges	Number and Size of Bolts	Water Gauge and Gauge Cocks Tapped, Standard.	Size of Water and Steam Connections	List Prices, Untrimmed
8″	4″	13″	3½″	¾″	4—½″	½″	1″	$18

The Wright Feed Water Controller

A Controller That Controls
A Regulator That Regulates

THIS simple appliance solves the problem of controlling the water feed in water tube boilers; also other patterns.

It maintains a uniform water line at any predetermined level, regardless of the condition of the load, and supplies the water continuously—not intermittently—and supplies exactly the quantity required under varying conditions.

The power to open and close the valves in the supply pipe is practically unlimited. If only ten pounds is required, only ten pounds is supplied, but if fifty pounds, or for that matter, five hundred pounds should become necessary to move the valve in either direction it is forthcoming.

It can therefore be depended upon absolutely.

DESCRIPTION

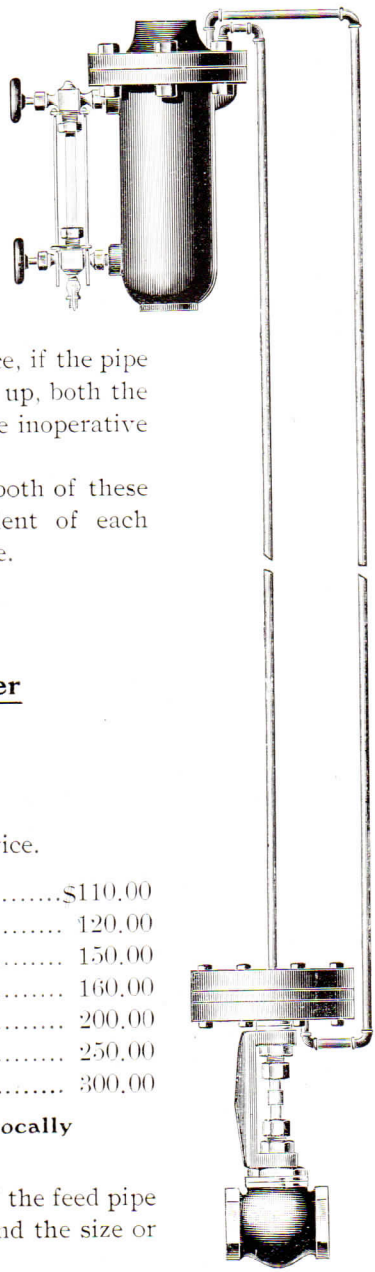
The controller consists simply of a valve in the water supply pipe controlled by an indestructible diaphragm of peculiar construction and valves in a float chamber connected with the boiler at the proper level, and an especially strong, seamless, round float which operates the valves.

In normal working condition, with the water at the proper level, both valves are open and the full boiler pressure is on both sides of the diaphragm, but an upward movement of a fraction of an inch in the water in the boiler raises the float, partially closing the low water valve and reducing the pressure on the under side of the diaphragm, thus partially closing the valve in the supply pipe and reducing the quantity of water supplied to the boiler. In the event of the water becoming a fraction of an inch lower in the boiler than it should be, the float descends, partly closing the high water valve and reducing the pressure on the top side of the diaphragm, thus opening the valve in supply pipe a little wider and supplying more water to the boiler in exact accord with the demands upon it.

It will be observed that it is positive in its control of the water supply under all conditions and circumstances.

The Controller and Safety Water Column

The combination of these two appliances on a boiler, when attached entirely independent of each other, is confidently believed to be the nearest approach to perfection in point of feed water regulation and safety yet attained.



We believe, however, that all who are competent to speak on the subject, if not all practical men, will agree with us in saying that the Controller Column and the Safety Water Column should be entirely independent of each other. They should both be connected with the boiler by large pipes in no way connected with each other or with any other pipes for obvious reasons. Where both are combined in one column, for instance, if the pipe connecting it with the boiler becomes stopped up, both the controller and the alarm would become alike inoperative at the critical moment.

It would be practically impossible for both of these simple appliances acting entirely independent of each other to become inoperative at the same time.

The Wright Feed Water Controller

PRICE LIST

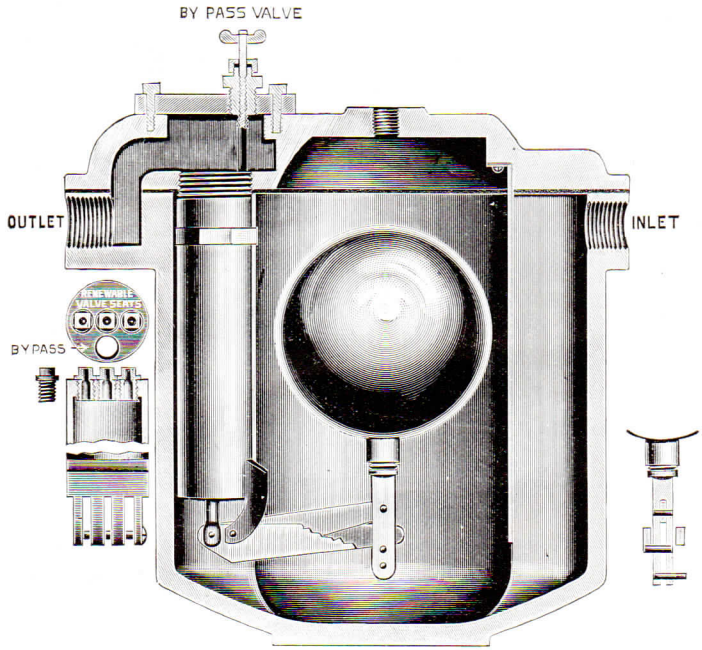
F. O. B. Cars Detroit.
For Marine or High Pressure Service.

No. 1.	10 to 30	H. P.	Boiler	$110.00
No. 2.	35 to 80	"	"	120.00
No. 3.	85 to 150	"	"	150.00
No. 4.	160 to 350	"	"	160.00
No. 5.	360 to 650	"	"	200.00
No. 6.	650 to 1000	"	"	250.00
No. 7.	1000 to 1500	"	"	300.00

Sold on 30 days' trial and unequivocally guaranteed to work perfectly

☞ In ordering always state the size of the feed pipe on which the Controller is to be placed and the size or H. P. of the boiler.

The Wright Emergency Steam Trap



A TRAP WHICH WILL DISPOSE OF AN UNUSUAL INFLOW OF WATER INSTANTLY AND WASTE NO STEAM

FOR PRICES AND DIMENSIONS SEE PAGE 13

DESCRIPTION

THREE steam tight outlet valves are employed instead of one. These valves are placed at the top of the trap, as far removed from dirt, grit and sediment as possible. The water enters, filling the trap to the center of the float and forming a seal of four to six inches of water over the lower end of the outlet pipe, thus preventing the escape and waste of steam.

When thus filled, sufficiently to raise the float, one valve is opened slightly if there is but little water coming into the trap, but widely in event of a sudden inflow of water. This one valve is equal to the task of taking care of the water under ordinary conditions, but in event of water coming into the trap faster than the one valve can discharge it, the water rises in the trap, carrying the float up with it and opening the second and third valve successively, if necessary. It will be observed that the discharge of each of these valves is continuous and that the action of the trap in emergencies is instantaneous.

There are many uses for these Traps where the emergency feature renders it invaluable. Attached to a Steam Separator, it will, in event of an emergency, such as may never arise, but may arise at any moment, save the engine from disastrous and expensive wreck.

Attached to the steam jacket, it will not only keep it free from condensation, but will instantly take care of the cold water with which they are flooded for some purposes, thus saving steam and increasing the capacity of the press. It is the only Trap that will do this and not waste steam.

It may be used with great economy and satisfaction in Sugar Refineries, Breweries, Rubber Works, Paper Mills, Dry Kilns, Laundries and all factories having a large amount of condensation to dispose of, as well as in public buildings, where they prevent the flooding of radiators by relieving them of condensation immediately when steam is turned on, thus allowing them to heat at once.

Mechanical Superiority

It is believed that these Traps excel in many details which go to make a successful trap. The valves are not only placed where they are least likely to become obstructed by sediment, or be worn out and rendered inoperative by grit, but are renewable without disturbing the piping or even taking off the cap. All the working parts are attached to the cap and may be removed without disturbing the piping.

The inlet and outlet being both on the same line, this Trap may be let into the floor, if necessary, in order to obtain the desired inclination to the pipe leading to the Trap, without which the efficiency of the heating system will be greatly impaired.

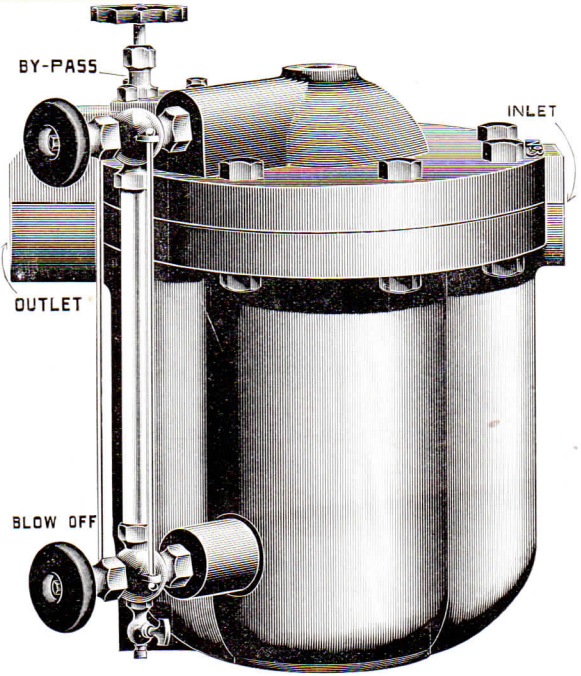
The traps are provided with a by-pass which may be used at will and which many engineers rightly insist upon having. Traps not provided with a by-pass are rendered inoperative if the valves become stopped up.

Provision is made for a water gauge, with which the operation of the trap many be watched.

They have wide and thick flanges and sufficient bolts to not only insure safety, but to prevent all trouble and annoyance by blowing out gaskets.

They are mechanical in design and workmanship and in every detail as near perfect as skill and experience, combined with a new factory and modern equipment can make them.

The floats are seamless and round—the strongest possible form for a float, and are made for high pressure service. They are tested to 300 pounds hydrostatic pressure and guaranteed for a working pressure of 150 pounds.



PRICE LIST

OF

The Wright Emergency Steam Trap

Size of Trap	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6
Size of Inlet and Outlet	½″	¾″	1″	1¼″	1½″	2″
Diameter through Inlet and Outlet	8¼″	12″	12¾″	13¾″	15¼″	16½″
Maximum Discharge in Gallons per hour	75	110	180	360	480	720
Intended for not Exceeding Square Feet of Radiating Surface.	900	1350	2250	4500	6000	9000
Intended for not Exceeding Lineal Feet of 1 inch Pipe.	2700	4000	6750	13500	18000	27000
List Price	$25 00	$30 00	$40 00	$55 00	$75 00	$100 00

NOTE: The actual capacity of these Traps is double the capacity indicated in square feet and lineal feet of 1 inch pipe, 50 per cent. of their capacity being reserved for emergencies.

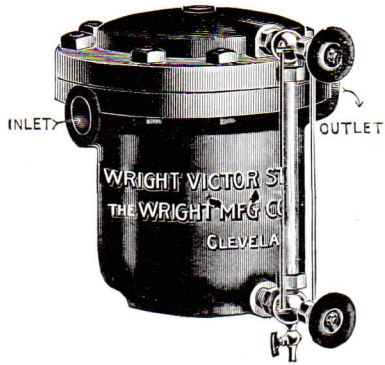
The Victor Steam Trap

THE Victor Steam Trap is made on the same principle as the Emergency Steam Trap described on previous pages, the difference being that it has one instead of three valves. It is a continuous drainer and will discharge the water in half the time required by an intermittent or pot trap. The seal consists of three or more inches of water over the lower end of the outlet pipe and the water is discharged without allowing any steam to escape. A by-pass is provided, which may be used in any emergency and likewise if the valve should become stopped up, the trap may also be blown out at will and entirely cleaned of any dirt and sediment.

Mechanical Advantages

This trap has many points of mechanical superiority. All parts are attached to the cap and may be removed without disturbing the piping. The valves are placed at the top of the Trap as far removed from grit and sediment as possible. These valves may be renewed without even disturbing the piping. The inlet and outlet are on the same line, which is a great convenience in some cases, as it makes possible a greater incline in the pipe leading to the trap than in cases of traps where the inlet is at the top and the outlet at the bottom. The seamless round floats are strong beyond the actual requirements and are guaranteed for one year to neither collapse nor fill with water. The material and workmanship are strictly first-class. They have wide and thick flanges and plenty of bolts, which insures no trouble with gaskets.

Like all the other appliances bearing our name, they are guaranteed to work perfectly.



Price List, Sizes and Dimensions

OF

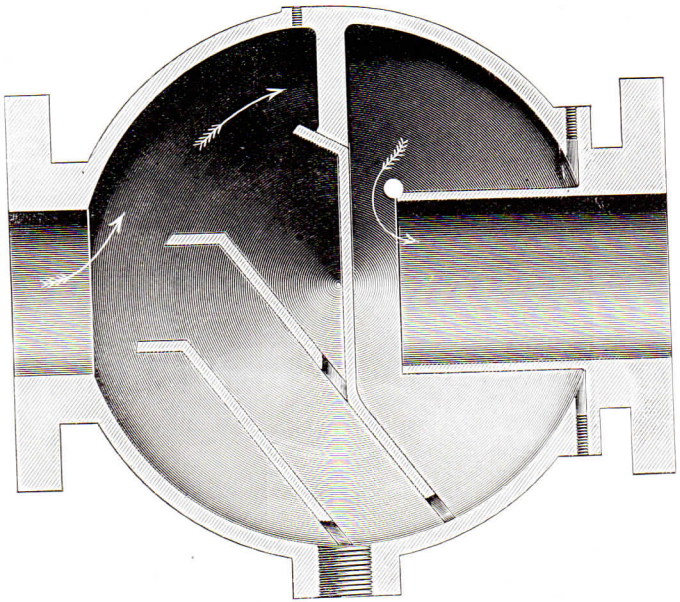
The Victor Steam Trap

No.	Size of Inlet and Outlet	Maximum Capacity in Water Discharged per hour		Capacity		Price	No.
		Pounds	Gallons	In Square Ft.	In Lineal Ft. 1" Pipe		
1	½"	200	24	600	1800	$20 00	1
2	¾"	300	36	900	2700	22 00	2
3	1"	500	60	1500	4500	28 00	3
4	1¼"	1000	120	3000	9000	35 00	4
5	1½"	1300	160	4000	12000	50 00	5
6	2"	2000	240	6000	18000	70 00	6

Note—When the trap is to be used under less than 30 pounds pressure, the pressure carried should be stated in the order, when low pressure valves will be supplied.

Every trap is tested under steam pressure, and they are guaranteed to be free from flaws and to work perfectly.

The Wright Steam Separator



DESCRIPTION

THE purpose of a Steam Separator is to separate the water from the steam, not to convert the steam into water. The Wright Steam Separator is made on common-sense principles, which will be understood by all practical minds, as well as by engineers. The principle involved is to allow the separation to take place naturally, the steam taking its **natural** course upward and the water its **natural** course downward, thus simply complying with the laws of nature. This is accomplished without unnecessarily diverting the steam from its natural course, or bringing it into contact with a needless amount of condensing surface. By this plan, the separation is accomplished without mixing the steam and water, as is necessarily the case with all separators which force the current of steam out of its natural course.

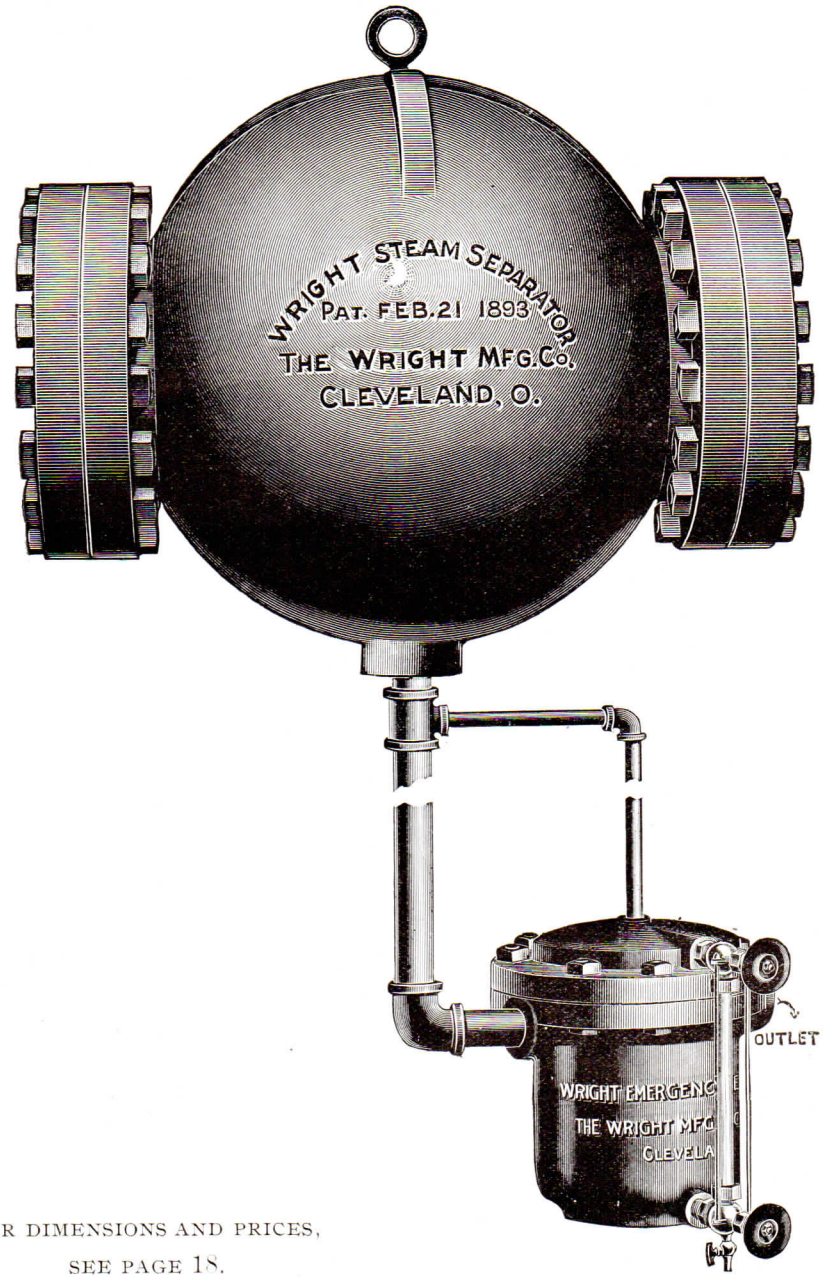
It will be observed that not a drop of water can become mixed with, or carried forward by, the steam in the Wright Separator after once becoming separated from it and that it is impossible for entrained water to be carried past the separator, or picked up by the steam while passing through it.

This Separator is also a perfect sphere—the strongest, most compact and lightest possible form for a steam separator.

An Ideal Combination

There is no separator made which will deliver steam to the engine in a dryer condition than the Wright, and in combination with the Wright Emergency Steam Trap, it affords the greatest possible protection against accidents and the greatest possible efficiency.

Separator and Emergency Trap



FOR DIMENSIONS AND PRICES,
SEE PAGE 18.

PRICE LIST

OF

The Wright Steam Separator

WITH AND WITHOUT THE EMERGENCY STEAM TRAP

Pipe Size.	Diameter of Flange.	Length Face to Face of Flange.	Number of Bolts.	Size of Pipe Connecting with Trap.	List Price without Trap.	List Price with Emergency Trap.	Pipe Size.
1½″	Tapped	6″	Tapped	¾″	20 00	50 00	1½″
2″	Tapped	6″	Tapped	¾″	30 00	60 00	2″
2½″	Tapped	7″	Tapped	¾″	40 00	70 00	2½″
3″	Tapped	8½″	Tapped	1″	50 00	90 00	3″
3½″	8½″	10½″	4—⅝″	1″	60 00	100 00	3½″
4″	9″	12⅝″	4—¾″	1″	70 00	110 00	4″
4½″	10″	16″	8—¾″	1″	75 00	115 00	4½″
5″	10″	16″	8—¾″	1¼″	80 00	135 00	5″
6″	11″	17½″	8—¾″	1¼″	110 00	165 00	6″
7″	12½″	20⅝″	8—¾″	1¼″	125 00	180 00	7″
8″	13½″	21¾″	8—¾″	1½″	160 00	235 00	8″
9″	15″	24″	12—¾″	1½″	190 00	265 00	9″
10″	16″	24″	12—⅞″	2″	220 00	320 00	10″
12″	19″	27″	12—⅞″	2½″	260 00	360 00	12″