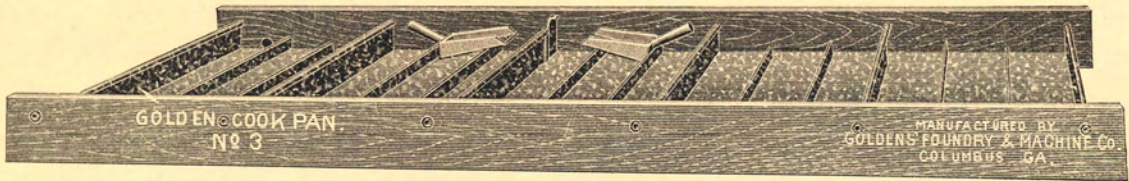


GOLDEN-COOK EVAPORATORS

MADE OF GALVANIZED IRON OR COPPER
(PATENTED)



The Golden-Cook Evaporator, while similar to the Cook model in general, is better and stronger, and is not equaled by any on the market. Price of Golden-Cook Evaporators net per foot as per discount sheet.

GENERAL DATA					No. and Approximate Weight of Slats Necessary to Strip in Accordance with Consolidated Freight Classification.		
No.	Size in Inches	Capacity, Gallons Syrup per 12 hr. Day	Weight Copper Pans	Weight Galvanized Pans	Number		Weight
2	44 x 72	35 to 50	74	62	14	23 lbs.	Weight of Slats to be added to Weight of Pan when Necessary to put them on.
3	44 x 90	50 to 75	84	78	17	30 lbs.	
4	44 x 108	65 to 100	100	92	20	33 lbs.	
5	44 x 126	80 to 125	118	109	23	38 lbs.	
6	44 x 144	100 to 175	135	128	26	42 lbs.	
7	44 x 180	125 to 200	170	150	32	51 lbs.	

Note—With each Copper Evaporator is furnished two Copper Skimmers, and with each Galvanized Evaporator is furnished two Tin Skimmers.

If Evaporator is ordered and kind of metal not specified we always ship Galvanized Evaporator.

The ordinary style Cook Evaporator is made with 18" sections, with a length equal to the width of pan, and one section is connected to another by simply turning the top of one section over another as shown in Figure 1.

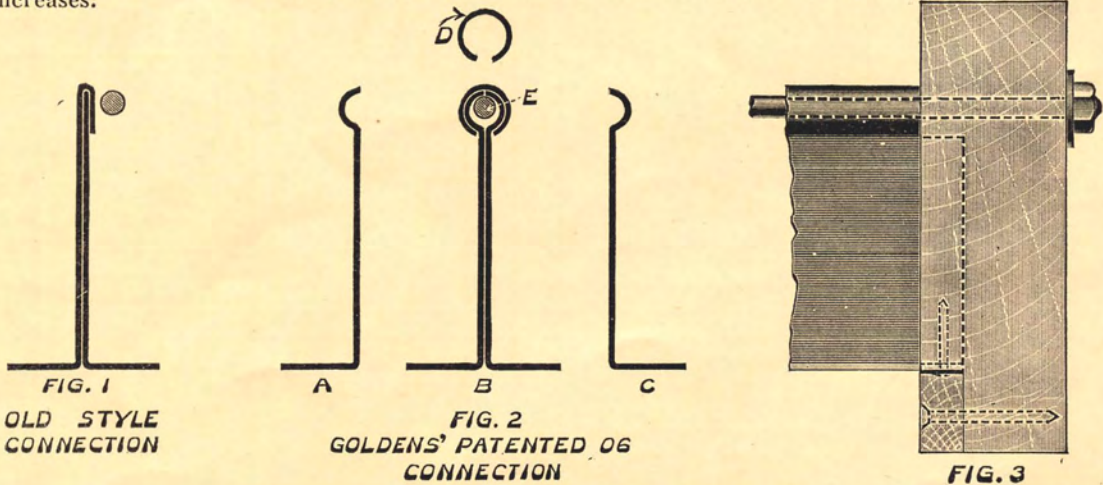
Three rods are generally used to tie pan together, without regard to length of pan, one rod in center near a joint as in Figure 1, and one at each end, none of which rods support the sections, which have a tendency to sag in the middle, the whole making a cheap as well as poor construction.

In the Golden-Cook Patented Evaporator (see cut above) the patented connection is constructed as shown in Figure 2. A, being one section to be connected to section C, by clip or thimble D, as shown connected at B.

The rod E supports both sections and clip, passing through side of pan as shown in Figure 3, and in connection with clip or thimble D, between wooden sides of pan, holds pan rigidly at top, while the bottom of pan is securely nailed to side in the usual manner, as shown in Figure 3.

In addition to making a stronger, neater joint at the joining of all sections EVERY section has a tie rod, as well as rods at each end of pan.

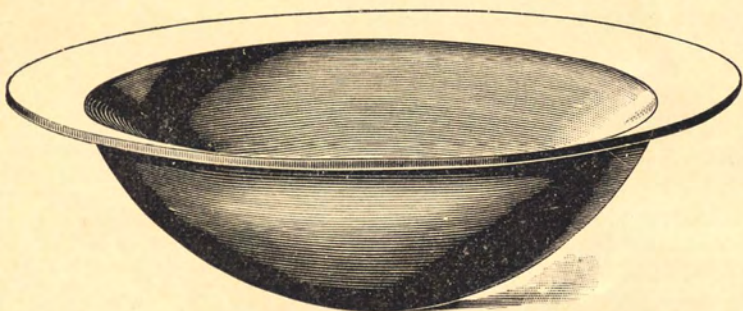
This gives a much stiffer, more durable pan in all sizes than the old pans, being proportionately stiffer as length of pan increases.



Showing Cross-Section of Pan

While most other manufacturers bend the sections by hand, our sections are made entirely by machinery, which gives a better and more uniform pan throughout. Instead of being bolted together at each end and the middle only, our pans have a rod bolt at the joint of all sections (18 inches apart) as well as rod bolts at each end of pan.

KETTLES



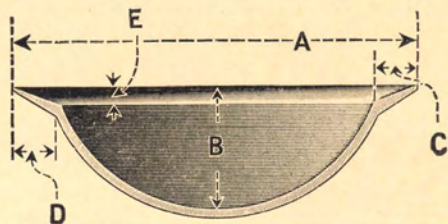
New York Pattern

PRICE LIST OF KETTLES

No.	Capacity	Weight	Price
00	20 Gallons	110	\$10.00
0	30 Gallons	120	12.00
1	40 Gallons	160	16.00
1½	50 Gallons	240	20.00
2	60 Gallons	290	24.00
3	80 Gallons	380	32.00
4	100 Gallons	420	40.00
5	150 Gallons	700	60.00
6	200 Gallons	1040	90.00

Note—Weights are approximate.

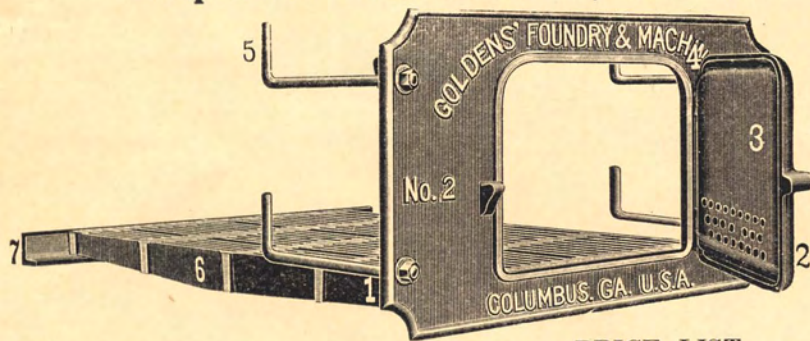
GENERAL DIMENSIONS



Capacity	A	B	C	D	E
20 Gallons	2' 10½"	12"	3¾"	3"	1½"
30 Gallons	3 4	13½"	4	3	1½"
40 Gallons	3 8½	14½"	4½"	3½"	1¾"
50 Gallons	4 0½	14½"	4½"	3½"	1¾"
60 Gallons	4 3½	15½"	4¾"	3¾"	1½"
80 Gallons	4 8½	16½"	4¾"	3¾"	1½"
100 Gallons	5 0½	17½"	5	4	1½"
150 Gallons	5 8½	21½"	5½"	5½"	1¾"
200 Gallons	6 3½	24	5¾"	4¾"	2½"

Our Kettles are of the New York Pattern, and are good, smooth and sound Castings, and hold full capacity in gallons as listed.

Evaporator Furnace Fronts, Grates, Bearing Bar and Anchors



With No. 1 Front use No. 2 or No. 3 Evaporator
 With No. 2 Front use No. 4 or No. 5 Evaporator
 With No. 3 Front use No. 6 or No. 7 Evaporator

PRICE LIST

No.	Size of Fronts Height Length	Size of Door Opening Height Length	Size of Grates Length	No. of Bars	Total Weight	Price Complete with Grate Bars	Price Complete without Grate Bars
1	15" 26½"	10" 12"	20"	5	180	\$21.00	\$11.25
2	16 30½"	11 15	24	6	245	28.50	13.50
3	18 35½"	12 18	28	7	343	40.50	18.00

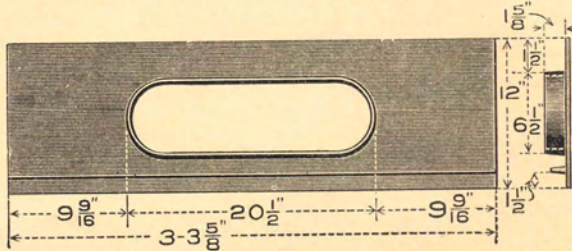
EVAPORATOR GRATE BARS

BACK PLATE (With Collar for Pipe)



PRICE LIST

Length	Width	Depth	Openings	Weight	Price
30"	4"	2¾"	¾"	21	\$2.50
36	4	2½"	¾"	26	3.10
42	4	2½"	¾"	32	3.90

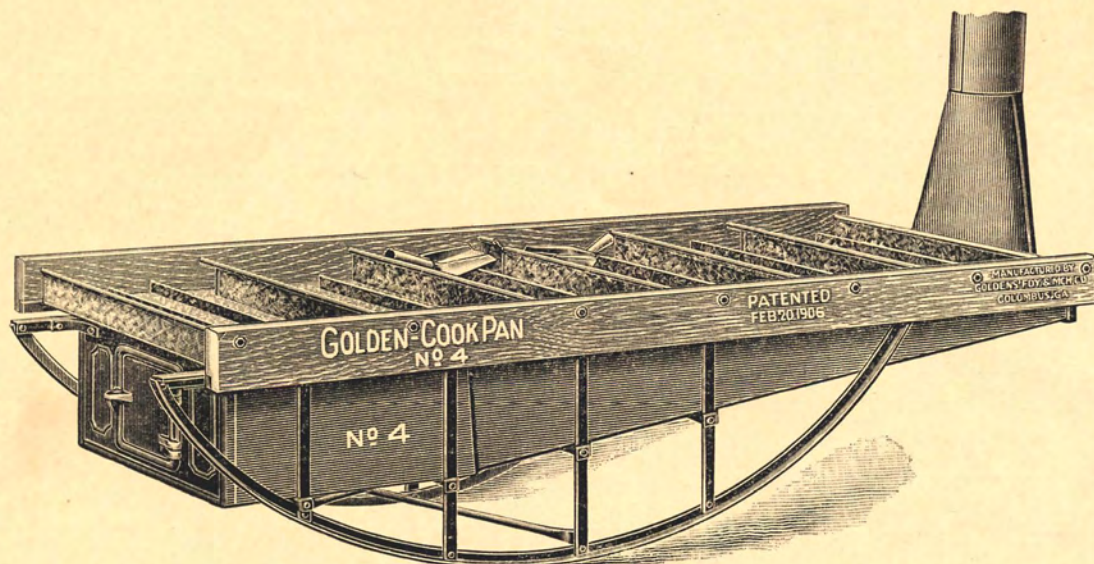


Price, \$4.90

Weight 40 pounds

PORTABLE ROCKER FURNACES

This cut represents Evaporator Pan on Furnace merely to show its completeness, but they are priced separately.



LIST PRICES OF FURNACES WITH GRATE AND CHIMNEY—NO PAN

No.	Size of Pan	Weight	List Price
2	44 ins. x 72 ins.	200 lbs.	\$35.00
3	44 ins. x 90 ins.	215 lbs.	40.00
4	44 ins. x 108 ins.	225 lbs.	45.00
5	44 ins. x 126 ins.	250 lbs.	55.00
6	44 ins. x 144 ins.	260 lbs.	60.00
7	44 ins. x 180 ins.	325 lbs.	80.00

The practical utility of the Rocker Furnace has long been recognized, hence a lengthy description is unnecessary.

FOR SETTING UP AND OPERATING ROCKER FURNACES

The rockers should be set in trenches so the furnace will be steady.

Preferably, the furnace should be set level; although it may be inclined very slightly towards the chimney-end—barely enough to cause the juice to flow very slowly.

A Rocker Furnace should be lined inside with brick on edge all the way up to the top of the furnace. Care should be taken to have the top of the Furnace smooth along both sides. A very thick lining of clay mortar (preferably fire-clay) may be used, but it is unsafe and not usually satisfactory.

Sand, fire-clay or ashes should be spread over bottom of furnace all the way up to the stack so as to prevent excessive heat from burning or warping it.

Sprinkle ashes or fine sand all along the sides and across each end of furnace, about one-half inch deep, or sufficiently so the Evaporator Pan will embed itself into it and thus make a tight joint, thereby conserving heat and preventing it from damaging the wooden sides of Pan, causing leakage.

Give plenty of draught so fire will burn briskly.

STANDARD GRATE BARS

Width 2 $\frac{1}{8}$ in.

No. 8—TWO FINGER BAR

Opening $\frac{1}{8}$ in.

Width 6 in.

No. 9—FIVE FINGER BAR

Openings $\frac{1}{8}$ in.

Width 6 in.

No. 10—FISH-GILL BAR

Openings $\frac{1}{8}$ in.

PRICE LIST OF STANDARD GRATE BARS

No. 8—TWO FINGER BARS

Length	Width	Depth	Openings	Wt.	Price	Length	Width	Depth	Openings	Wt.	Price
3 ft. 0 in.....	2 $\frac{1}{8}$ in.	4 $\frac{1}{2}$ in.	$\frac{9}{16}$ in.	38	\$3.50	5 ft. 0 in.....	2 $\frac{1}{8}$ in.	5 in.	$\frac{9}{16}$ in.	71	\$6.50
3 ft. 6 in.....	2 $\frac{1}{8}$ in.	4 $\frac{1}{2}$ in.	$\frac{9}{16}$ in.	41	3.75	5 ft. 6 in.....	2 $\frac{1}{8}$ in.	5 $\frac{3}{8}$ in.	$\frac{9}{16}$ in.	83	7.50
4 ft. 0 in.....	2 $\frac{1}{8}$ in.	4 $\frac{1}{2}$ in.	$\frac{9}{16}$ in.	52	4.65	6 ft. 0 in.....	2 $\frac{1}{8}$ in.	6 in.	$\frac{9}{16}$ in.	101	9.10
4 ft. 6 in.....	2 $\frac{1}{8}$ in.	4 $\frac{1}{2}$ in.	$\frac{9}{16}$ in.	60	5.00						

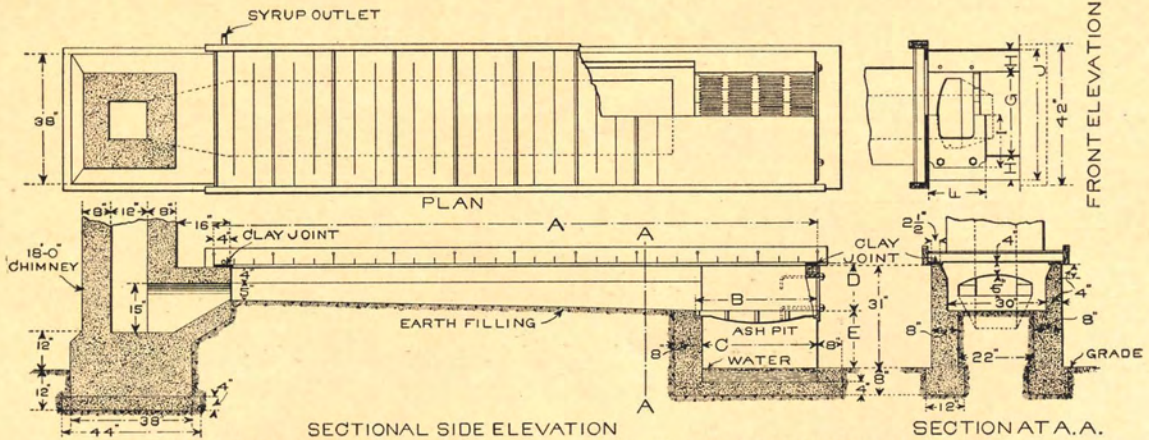
No. 9—FIVE FINGER BARS

Length	Width	Depth	Openings	Wt.	Price	Length	Width	Depth	Openings	Wt.	Price
2 ft. 6 in.....	6 in.	5 in.	$\frac{1}{8}$ in.	54	\$5.00	4 ft. 6 in.....	6 in.	5 in.	$\frac{1}{8}$ in.	99	\$ 9.00
3 ft. 0 in.....	6 in.	5 in.	$\frac{1}{8}$ in.	63	5.75	5 ft. 0 in.....	6 in.	5 in.	$\frac{1}{8}$ in.	112	10.00
3 ft. 6 in.....	6 in.	5 in.	$\frac{1}{8}$ in.	68	6.15	6 ft. 0 in.....	6 in.	5 in.	$\frac{1}{8}$ in.	146	13.00
4 ft. 0 in.....	6 in.	5 in.	$\frac{1}{8}$ in.	84	7.60						

No. 10—FISH-GILL BARS

Length	Width	Depth	Openings	Wt.	Price	Length	Width	Depth	Openings	Wt.	Price
2 ft. 6 in.....	6 in.	5 in.	$\frac{1}{8}$ in.	56	\$5.00	4 ft. 6 in.....	6 in.	5 $\frac{1}{4}$ in.	$\frac{1}{8}$ in.	108	\$ 9.75
3 ft. 0 in.....	6 in.	5 in.	$\frac{1}{8}$ in.	67	6.00	5 ft. 0 in.....	6 in.	6 in.	$\frac{1}{8}$ in.	121	11.00
3 ft. 4 in.....	6 in.	5 in.	$\frac{1}{8}$ in.	80	7.25	5 ft. 6 in.....	6 in.	6 $\frac{1}{2}$ in.	$\frac{1}{8}$ in.	135	12.15
3 ft. 6 in.....	6 in.	5 in.	$\frac{1}{8}$ in.	84	7.60	6 ft. 0 in.....	6 in.	6 $\frac{1}{2}$ in.	$\frac{1}{8}$ in.	153	13.80
4 ft. 0 in.....	6 in.	5 $\frac{1}{2}$ in.	$\frac{1}{8}$ in.	96	8.65						

DIAGRAM OF FURNACE SETTING



GENERAL DIMENSIONS FOR GOLDEN-COOK EVAPORATOR, FURNACE SETTINGS.

Number of Pan	Size of Pan	Furnace Front Used	A	B	C	D	E	F	G	H	I	J
2.....	44" x 72"	No. 1.....	72"	30"	28"	13½"	18½"	15"	22"	8"	13¼"	38"
3.....	44 x 90	No. 1.....	90	30	28	13½	18½	15	22	8	13¼	38
4.....	44 x 108	No. 2.....	108	36	34	14½	17½	16½	26	6½	15½	39
5.....	44 x 126	No. 2.....	126	36	34	14½	17½	16½	26	6½	15½	39
6.....	44 x 144	No. 3.....	144	42	40	16	16	18	30	4	17½	38
7.....	44 x 180	No. 3.....	180	42	40	16	16	18	30	4	17½	38

GENERAL DIRECTIONS FOR FURNACE SETTINGS, AND THE PROCESS OF MAKING CANE SYRUP.

Locate brick or concrete settings for stationary pans so that front or furnace end faces prevailing winds.

The chimney should be 18 to 20 feet high for the longest pans, and may be proportionately lower for shorter pans. Set pan on walls right side up and level from side to side with water.

The end of pan receiving juice should be at front end of furnace, the end delivering syrup at chimney end.

The pan should have a slight pitch lengthwise, the front end of pan being slightly lower than the rear end, so as to fill the first channel about two-thirds full of water, when the last channel at outlet is barely covered.

Wedges should be used at the chimney end to give pitch to pan, then using wedges as a guide finish top of wall with mortar, using a clay joint between mortar and pan, to exclude smoke or ashes from pan.

Juice from settling tank to pan should be strained through cloth, or fine mesh wire, somewhat finer than ordinary window screen, and tank should be located high enough to allow juice to run to pan by gravity, the quantity of juice to pan being regulated by a faucet.

In the continuous process, first put enough water in pan, to protect same, until water boils all over pan, then slightly open faucet of juice tank, and outlet of pan, letting juice follow water at such rate of flow, that syrup of desired quality, will come from outlet continuously; the syrup should be kept as shallow as possible at the outlet end.

When cooking properly the juice in its travel becomes so thick as to practically fill the pan with foam, but if the supply at inlet and outlet is kept right, by faucet gates, and outlet plug, with uniform heat, the quality and quantity of syrup should remain constant.

Care should be taken to avoid flooding any of the channels in pan by too sudden changes of gates, as this makes dark colored poor syrup.

Do not let syrup at outlet get too low without a supply following it, as it is apt to burn or make dark syrup.

The fire should be kept hot and regular to keep the operation continuous, it also keeps scum and juice from mixing, and throws scum to side of pan where it can be removed.

Unless pan is sheltered from wind, evaporation will be retarded and syrup will take longer to finish.

Ash pit should be filled with water.

Any dents in pan can be removed by using a flat headed wooden mallet, with a smooth flat piece of wood beneath to hammer on.

In stopping operations for the day, water should follow juice until juice has been reduced to syrup, then wash pan and fill with clean water, and let it stand over night, using it to start with the next morning, as already described. Clean all pans, skimmers, etc., and renew straw or hay used for filtering in juice tank each night.

To insure success, you should use fresh juice, sour juice may be used but it makes poor syrup.

The most important point in syrup making, is the keeping of a shallow depth of juice, and a steady high heat continuously, this will keep the scum and impurities thrown to sides of pan, and as juice boils more rapidly when shallow, the syrup will be of lighter color, and better grade.

Should the syrup become cooked before reaching the last channel it is because of improper regulation of juice flow, too much heat at center of pan, or improper pitch of pan (the same general directions apply to rocker furnaces, as to setting for stationary pan).

Should green scum follow syrup through pan it may be caused by changing the inclination of rocker furnace too suddenly or lack of a hot steady fire.

If back end of pan floods, close faucet, lower front or juice inlet end so there will be but little syrup or juice in last channel, make a hot fire under pan, and when syrup comes right, adjust furnace as before trouble started.

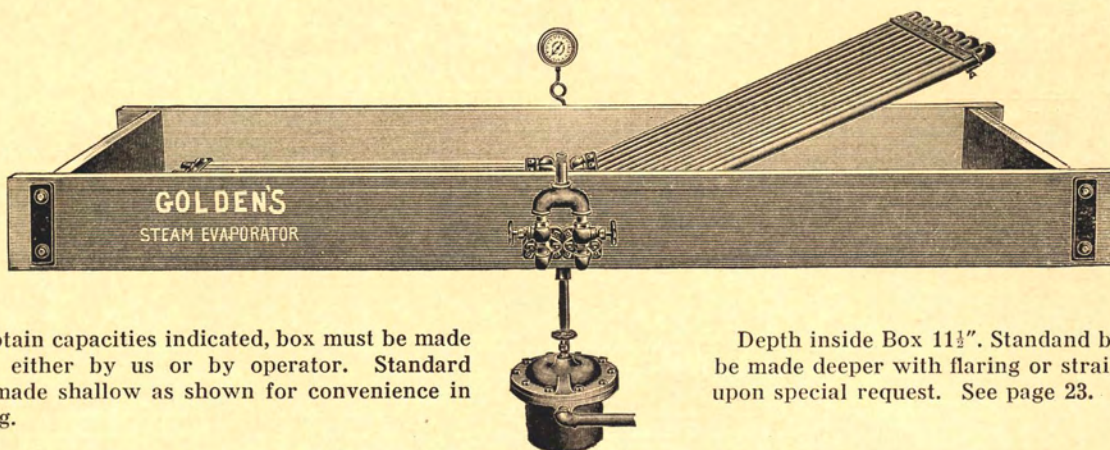
When syrup is cooking properly green scum will form in first channels, gradually becoming lighter in color and less in quantity as it flows through channels, until it disappears.

Do not skim until scum is thick.

The rapidity of the process of cooking the syrup requires careful constant attention to produce a satisfactory grade of syrup. A Baume hydrometer should be used to get a uniform grade of syrup, ordinarily it should read from 32 degrees to 35 degrees. (The hot syrup will show 2 degrees to 3 degrees lower than when cold). Syrup from some cane shows a tendency to turn to sugar sooner than from other cane, so that the proper degree to boil syrup to, should be determined low enough so it will not sugar.

GOLDENS' IMPROVED STEAM EVAPORATOR No. 1

TWO SECTIONS
1" GALVANIZED PIPE



To obtain capacities indicated, box must be made higher, either by us or by operator. Standard boxes made shallow as shown for convenience in shipping.

Depth inside Box 11 $\frac{1}{2}$ ". Standard boxes can be made deeper with flaring or straight sides upon special request. See page 23.

Where an Evaporator of greater capacity than the one shown on the following page is desired, we make an Evaporator composed of two sections, each section being independent of the other; section located 5" on center of trunions. With this style of Evaporator the operator can boil a part of the juice if he so desires, or all of it at one time. This style Evaporator can be made up in any length by using two standard sections. Each section includes the fittings given for a single section. This Evaporator should be used with the Collector shown in cut and described on page 38.



Price List of Two 1 Inch Single Pipe Sections as Shown Above

AND
PRICE AND SIZE OF POPLAR EVAPORATOR BOX

Size of Box	Capacity Gals. Syrup Per Hour	Holds Two Sections of Pipe	Price of Poplar Evaporator Box only	Length of each Section	Price of Two Pipe Sections Complete without Evaporator Box	Price of Two Pipe Sections Complete with Extra Valves and Evaporator Box	Price of Two Pipe Sections Complete with Extra Valves and Evaporator Box. Bottom Lined with Galvanized Iron	Price of Two Pipe Sections Complete with Extra Valves and Evaporator Box. Bottom lined with Copper.
9' x 44"	10	4' 0" Each	\$ 67.50	4' 0"	\$129.00	\$207.00	\$228.00	\$273.00
11 x 44	12	5 0 "	82.50	5 0 "	133.00	225.75	251.25	305.25
13 x 44	15	6 0 "	97.50	6 0 "	136.50	244.50	274.50	339.00
15 x 44	17	7 0 "	112.50	7 0 "	141.00	264.00	298.50	372.00

Add for Collector and Fittings, if wanted..... \$67.50

Add for Steam Gage and Fittings, if wanted..... 10.50

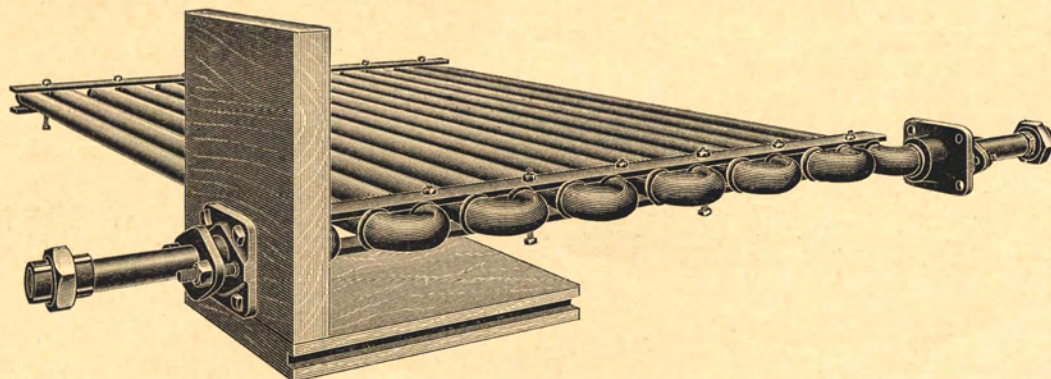
Add for Saccharometer, if wanted..... 3.00

OPERATION OF No. 1 STEAM EVAPORATOR

The regulation of heat in this Evaporator is effected by control of the steam at the inlet, and by opening the valves wider or closing them, more or less heat can be obtained. The piping of this Evaporator is connected with plain return bends, and the steam that is admitted at the inlet traverses the entire length of each pipe of the section. When first starting up the Evaporator it is well to turn in just enough steam to heat the juice without boiling for when the juice becomes heated the scum rises to the top, and if it is not allowed to boil the scum can be easily removed with skimmers, which we furnish with the Evaporator. After all the scum has been removed then turn on steam sufficient to boil the juice as much as necessary. One advantage the Steam Evaporator has over old style fired Evaporator, is there is no danger of burning or scorching the juice as long as pipes are well covered. Should this occur it ruins the syrup.

Section of Goldens' Improved Steam Evaporator No. 1

1" GALVANIZED PIPE



Cut A

The above cut shows a section for our No. 1 Steam Evaporator, composed of 1" Galvanized Iron Pipe and Fittings.

These sections are made up in lengths of 4', 5', 6', 7', 8', 10', 12' and 14', all 39½" wide to elbows that bear against stuffing boxes.

In this style Evaporator connections are made for inlet and outlet for waste pipe or collector and for inlet valves to control steam.

The following articles compose a section, 14 pieces, 1" Galvanized Pipe, 13—1" Galvanized Return Bends, 2—1" Galvanized Elbows, 2—1" Unions, 2—1" Nipples 7½" long, 2 Stuffing Boxes with Glands and Studs, 4 Galvanized Iron Straps and Bolts, and 8—¾"x2" Lag Screws.



Price List of One 1 Inch Single Pipe Section as Shown Above

AND

PRICE AND SIZE OF POPLAR EVAPORATOR BOX

Size of Box	Capacity Gals. Syrup Per Hour	Holds Standard Section of Pipe	Price of Poplar Evaporator Box only	Length of Section	Price of Pipe Section Complete without Evaporator Box	Price of Pipe Section Complete with Extra Valves and Evaporator Box.	Price of Pipe Section Complete with Extra Valves and Evaporator Box. Bottom Lined with Galvanized Iron	Price of Pipe Section Complete with Extra Valves and Evaporator Box. Bottom Lined with Copper
5' x 44"	5	4' 0"	\$ 37.50	4' 0"	\$ 64.50	\$106.50	\$118.50	\$141.00
6 x 44	6	5 0	45.00	5 0	66.50	116.00	129.50	158.00
7 x 44	7½	6 0	52.50	6 0	68.25	125.25	141.00	174.75
8 x 44	8½	7 0	60.00	7 0	70.50	135.00	153.00	192.00
9 x 44	10	8 0	67.50	8 0	72.75	144.75	165.75	210.75
11 x 44	12	10 0	82.50	10 0	78.00	165.00	190.50	244.50
13 x 44	15	12 0	97.50	12 0	84.00	186.00	216.00	280.50
15 x 44	17	14 0	112.50	14 0	90.00	207.00	241.50	315.00

Add for Collector and Fittings, if wanted.....\$67.50

Add for Steam Gage and Fittings, if wanted..... 10.50

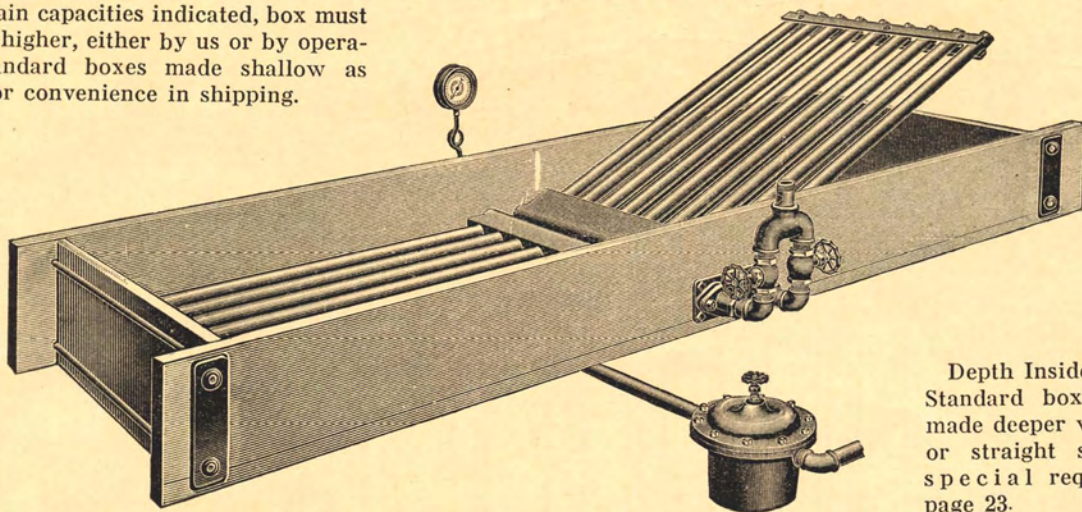
Add for Saccharometer, if wanted..... 3.00

The above price list includes the straps, bolts, lag screws, pipe, return bends, elbows, nipples, unions, and stuffing boxes complete, as shown in Cut A. These sections are used in making Steam Evaporators containing one section only, or two sections as desired. If single section Evaporator, as shown in Cut A, is wanted, or complete in poplar box with Fittings and Collector, price would be as above.

GOLDENS' IMPROVED STEAM EVAPORATOR No. 1 1/2

TWO SECTIONS
1 1/2" GALVANIZED PIPE

To obtain capacities indicated, box must be made higher, either by us or by operator. Standard boxes made shallow as shown for convenience in shipping.



Depth Inside Box 11 1/2". Standard boxes can be made deeper with flaring or straight sides upon special request. See page 23.

This Evaporator is composed of two sections, each section being similar to the one described on the following page. Each section is pivoted on a trunion and can be easily raised to allow the Evaporator to be cleaned. This Evaporator should be used with the Collector shown in cut and described on page 38. Evaporators can be made any length desired by using two sections the proper length.



Price List of Two 1 1/2 Inch Double Pipe Sections as Shown Above

AND

PRICE AND SIZE OF POPLAR EVAPORATOR BOX

Size of Box	Capacity Gals. Syrup Per Hour	Holds Two Sections of Pipe	Price of Poplar Evaporator Box only	Length of Each Section	Price of Two Pipe Sections Complete without Evaporator Box	Price of Two Pipe Sections Complete with Extra Valves and Evaporator Box	Price of Two Pipe Sections Complete with Extra Valves and Evaporator Box. Bottom Lined with Galvanized Iron	Price of Two Pipe Sections Complete with Extra Valves and Evaporator Box. Bottom Lined with Copper
9' x 44"	14	4' 0" Each	\$ 67.50	4' 0"	\$195.00	\$283.50	\$304.50	\$349.50
11 x 44	17	5 0 "	82.50	5 0 "	205.00	308.25	333.75	387.75
13 x 44	20	6 0 "	97.50	6 0 "	214.50	333.00	363.00	427.50
15 x 44	24	7 0 "	112.50	7 0 "	224.30	357.75	392.25	465.75

Add for Collector and Fittings, if wanted..... \$82.50

Add for Steam Gage and Fittings, if wanted..... 10.50

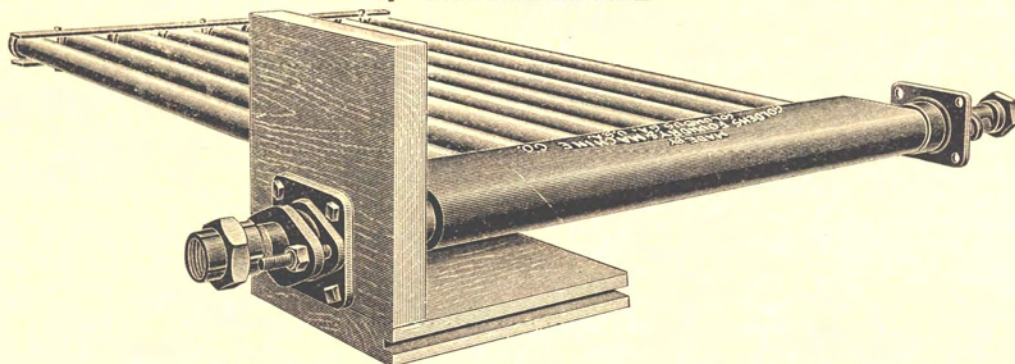
Add for Saccharometer, if wanted..... 3.00

SACCHAROMETER

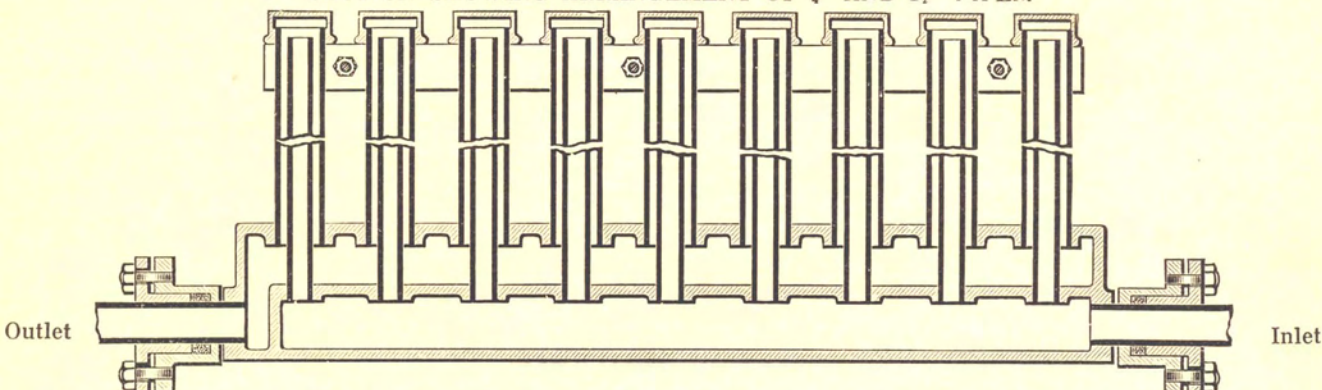
This is a delicate instrument, consisting of a weighted bulb and a stem five or six inches long, so graduated as to indicate in figures the strength or density of any solution, according to the scale suggested by Mr. Baume. It is used by dropping it into a deep test cup, containing liquid to be tested. It will sink to a certain point and there remain at rest. The number of degrees of the scale which appear above the surface of the fluid marks the density in degrees. In soft water the Saccharometer will sink to zero; in cane juice it will mark from 5 to 10 degrees, according to the richness of the juice, the higher figures indicating the richer juice; in syrup it will mark from 6 to 40 degrees. Boiling hot juice will show from 2 to 3 degrees less than cold juice, and boiling hot syrup about 4 degrees less density than when cold. The temperature for which the scale is graduated is 60 degrees.

Section for Golden's Improved Steam Evaporator No. 1½

1½" GALVANIZED PIPE



SECTION SHOWING ARRANGEMENT OF ¾" AND 1½" PIPES.



This Evaporator is of very different construction from our No. 1 Evaporator, as will be noted. Each section consists of a Cast Iron Manifold with nine 1½" Galvanized pipes, and inside of each Galvanized pipe there is a ¾" black pipe running nearly the full length of the larger pipe. Steam is admitted into the manifold and conveyed through the ¾" pipe nearly to the end of the large pipe, then returning on inside of large pipe and over the hot ¾" pipe reduces condensation to a minimum and gives more uniform heat. These sections are made up in lengths of 4', 5', 6', 7', 8', 10', 12' and 14' all 40" wide. Connections are made for inlet or outlet and to waste pipe, or to Collector and waste pipe, with valves to control steam.

The following articles compose a section: 9 pieces 1½" Galvanized Pipe, 9 piece ¾" Black Pipe (inside 1½" pipe), 2 short pieces Galvanized Pipe for Trunions, 9—1½" Galvanized Caps, 1 Cast Iron Manifold, 2 Galvanized Iron Straps and Bolts, 2—1½" Stuffing Boxes and Glands, complete with 8 Lag Screws to bolt Stuffing Box to Evaporator, 2—1½" Unions.



Price List of One 1½ Inch Double Pipe Section as Shown Above

AND

PRICE AND SIZE OF POPLAR EVAPORATOR BOX

Size of Box	Capacity Gals. Syrup Per Hour	Holds Standard Section of Pipe	Price of Poplar Evaporator Box only	Length of Section	Price of Pipe Section Complete without Evaporator Box	Price of Pipe Section Complete with Extra Valves and Evaporator Box	Price of Pipe Section Complete with Extra Valves and Evaporator Box. Bottom Lined with Galvanized Iron	Price of Pipe Section Complete with Extra Valves and Evaporator Box. Bottom Lined with Copper
5' x 44"	7	4' 0"	\$37.50	4' 0"	\$ 97.50	\$145.50	\$157.50	\$180.00
6 x 44	8½	5 0	45.00	5 0	102.50	158.00	171.50	200.00
7 x 44	10	6 0	52.50	6 0	107.25	170.25	186.00	219.75
8 x 44	12	7 0	60.00	7 0	112.15	183.00	201.00	240.00
9 x 44	14	8 0	67.50	8 0	117.00	195.00	216.00	261.00
11 x 44	17	10 0	82.50	10 0	126.75	219.75	245.25	299.25
13 x 44	20	12 0	97.50	12 0	136.50	244.50	274.50	339.00
15 x 44	24	14 0	112.50	14 0	146.25	268.50	303.75	377.25

Add for Collector and Fittings, if wanted..... \$82.50
 Add for Steam Gage and Fittings, if wanted..... 10.50
 Add for Saccharometer, if wanted..... 3.00

OPERATION OF No. 1 1/2 STEAM EVAPORATOR

The control of heat in this Evaporator is effected in the same manner as in the No. 1 Evaporator, that is by valves located at the inlet. The arrangement of the piping in this Evaporator is very different from our No. 1. The steam is admitted into a manifold having nine outlets. This Manifold has two sections—the inner section into which the steam is admitted has 3/4" outlets; and the outer section which carries the steam to the outlet, has 1 1/2" openings. The 3/4" openings are in line with the 1 1/2" openings so that when fitted up, the 3/4" pipe is inside the 1 1/2" pipe. The steam is conveyed through the 3/4" pipe to the end of the 1 1/2" pipe and then returns on the outside of the small pipe and inside the large pipe. The large pipe being in contact with the cold juice, has a tendency to condense the steam, but the 3/4" pipe, over which the steam passes, being very hot, counteracts, in a great measure, the effect of the cold pipe and reduces loss by condensation to a minimum. The pipe in contact with the juice being larger than in the other Evaporator, gives a greater heating surface, giving quicker results.

Care should be used in starting operation, not to boil the juice before the scum is all taken off. By heating the juice, without boiling, the scum rises to the top and can be easily removed with skimmers which we furnish. Be very careful to have ample juice in box, so when boiled to syrup pipe coils will be well covered by finished syrup. If coils are not well covered syrup will burn.

APX. CAPACITY, GALLONS OF SYRUP PER HOUR, OF GOLDENS' STEAM EVAPORATORS.

Number 1	With 2-4 Foot Sections,	Apx. 10 Gals. Syrup Per Hour.
Number 1	With 2-5 Foot Sections,	Apx. 12 Gals. Syrup Per Hour.
Number 1	With 2-6 Foot Sections,	Apx. 15 Gals. Syrup Per Hour.
Number 1	With 2-7 Foot Sections,	Apx. 17 Gals. Syrup Per Hour.
Number 1 1/2	With 2-4 Foot Sections,	Apx. 14 Gals. Syrup Per Hour.
Number 1 1/2	With 2-5 Foot Sections,	Apx. 17 Gals. Syrup Per Hour.
Number 1 1/2	With 2-6 Foot Sections,	Apx. 20 Gals. Syrup Per Hour.
Number 1 1/2	With 2-7 Foot Sections,	Apx. 24 Gals. Syrup Per Hour.

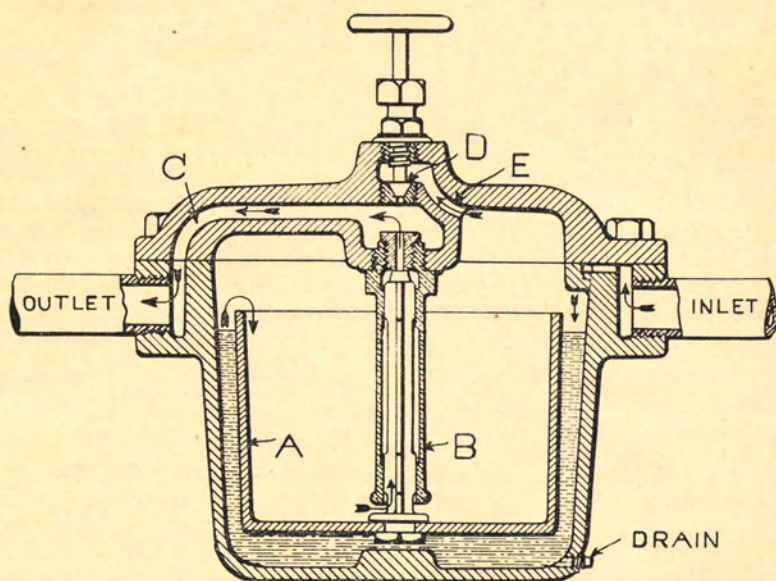
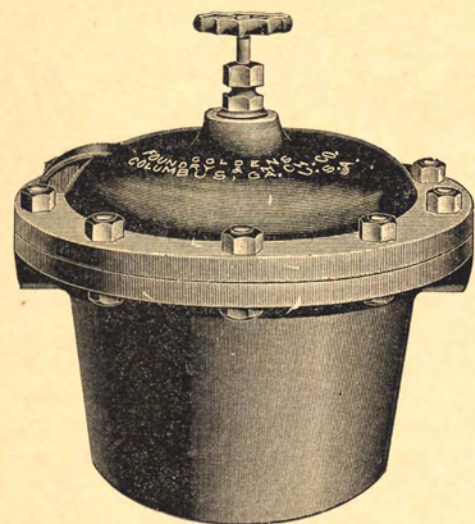
Note: Owing to the variation of quantity of juice required to make a gallon of syrup it is impossible to give exact capacity of Evaporators.

APX. HORSE POWER OF BOILERS NEEDED FOR STEAM EVAPORATORS WITH TRAPS (COLLECTORS)

Number 1	Evaporator With 2- 4 Ft. Sections and Trap Needs	4 H. P. Boiler.
Number 1	Evaporator With 2- 5 Ft. Sections and Trap Needs	5 H. P. Boiler.
Number 1	Evaporator With 2- 6 Ft. Sections and Trap Needs	6 H. P. Boiler.
Number 1	Evaporator With 2- 7 Ft. Sections and Trap Needs	7 H. P. Boiler.
Number 1	Evaporator With 1- 4 Ft. Section and Trap Needs	2 H. P. Boiler.
Number 1	Evaporator With 1- 5 Ft. Section and Trap Needs	2 1/2 H. P. Boiler.
Number 1	Evaporator With 1- 6 Ft. Section and Trap Needs	3 H. P. Boiler.
Number 1	Evaporator With 1- 7 Ft. Section and Trap Needs	3 1/2 H. P. Boiler.
Number 1	Evaporator With 1- 8 Ft. Section and Trap Needs	4 H. P. Boiler.
Number 1	Evaporator With 1-10 Ft. Section and Trap Needs	5 H. P. Boiler.
Number 1	Evaporator With 1-12 Ft. Section and Trap Needs	6 H. P. Boiler.
Number 1	Evaporator With 1-14 Ft. Section and Trap Needs	7 H. P. Boiler.
Number 1 1/2	Evaporator With 2- 4 Ft. Sections and Trap Needs	5 1/2 H. P. Boiler.
Number 1 1/2	Evaporator With 2- 5 Ft. Sections and Trap Needs	6 1/2 H. P. Boiler.
Number 1 1/2	Evaporator With 2- 6 Ft. Sections and Trap Needs	7 1/2 H. P. Boiler.
Number 1 1/2	Evaporator With 2- 7 Ft. Sections and Trap Needs	9 H. P. Boiler.
Number 1 1/2	Evaporator With 1- 4 Ft. Section and Trap Needs	2 3/4 H. P. Boiler.
Number 1 1/2	Evaporator With 1- 5 Ft. Section and Trap Needs	3 1/4 H. P. Boiler.
Number 1 1/2	Evaporator With 1- 6 Ft. Section and Trap Needs	3 3/4 H. P. Boiler.
Number 1 1/2	Evaporator With 1- 7 Ft. Section and Trap Needs	4 1/2 H. P. Boiler.
Number 1 1/2	Evaporator With 1- 8 Ft. Section and Trap Needs	5 1/2 H. P. Boiler.
Number 1 1/2	Evaporator With 1-10 Ft. Section and Trap Needs	6 1/2 H. P. Boiler.
Number 1 1/2	Evaporator With 1-12 Ft. Section and Trap Needs	7 1/2 H. P. Boiler.
Number 1 1/2	Evaporator With 1-14 Ft. Section and Trap Needs	9 H. P. Boiler.

Note: For best results, Steam pressure should be 70 lbs. and above at inlet to Evaporator. Allowance should be made for extra H. P. of Boiler, running as high as 50% additional to figures shown in above table, when Boiler is at a distance from Evaporator.

GOLDENS' CONDENSED STEAM COLLECTOR (TRAP)



These Collectors are made in two sizes, No. 1 for the No. 1 Steam Evaporator, and No. 1½ for the No. 1½ Steam Evaporator. The object of this Collector is to discharge the water condensed from the steam, and at the same time retain the live steam in the pipes. By using these Collectors in connection with the Steam Evaporators, a more uniform heat is obtained, the efficiency of the Evaporator is increased, and the fuel consumption is reduced.

Collector	List Price
No. 1, for 1" pipe.....	\$56.25
No. 1½, for 1½" pipe.....	75.00



Operation of Goldens' Condensed Steam Collector

The Collector consists of a cast-iron pot with two holes near the top—one connects to discharge from Evaporator and the other is for waste pipe discharging water from Collector. There is a plug in bottom of Collector for draining. The cap is securely bolted to the bottom with rubber packing ring between, making a water and steam tight joint. In the center of Cap a guide tube "B" is screwed, with an opening in the center connecting with hole in Cap which leads to outlet thru passage "C". A valve slides up and down in the guide tube, to the bottom of which is bolted a float "A" with open top. In the operation of the Collector, the bottom is partially filled with water, to bring valve stem in guide tube up against seat at top, which prevents steam or water from passing from inlet to outlet. As the condensed water runs into the Collector ahead of the steam, it gradually fills up bottom above the level of top of float and runs into the float. This causes the float to sink lower, opening the valve at the top of guide tube and allowing the steam behind the water to force the water out through this valve. When a sufficient amount of water has been thus forced out to cause the float to rise again, it automatically closes the valve and prevents the escape of steam. This operation is repeated automatically as often as enough water collects to cause float to sink. The valve "D" in the Cap is a by-pass, and is kept closed during the operation of the Collector. The object of this valve is to blow any obstruction out of waste pipe by direct steam pressure, thru passage "E" to passage "C", and does not affect the working of the Collector.