

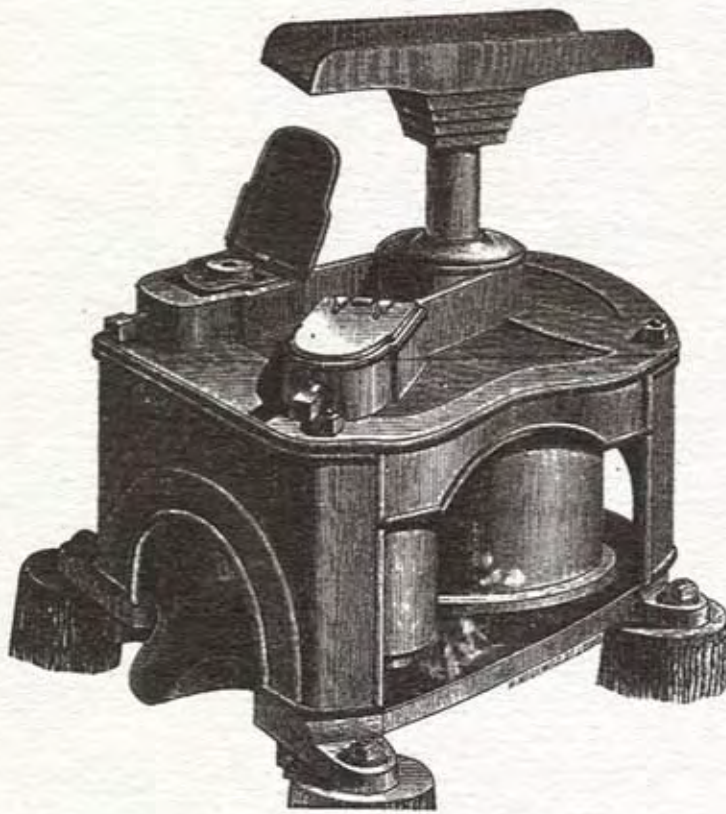
**MANNY & CO.**  
**ST. LOUIS**

**1880**

**GENERAL CATALOGUE OF**

# **CANE MILLS**

**AND EVAPORATORS**

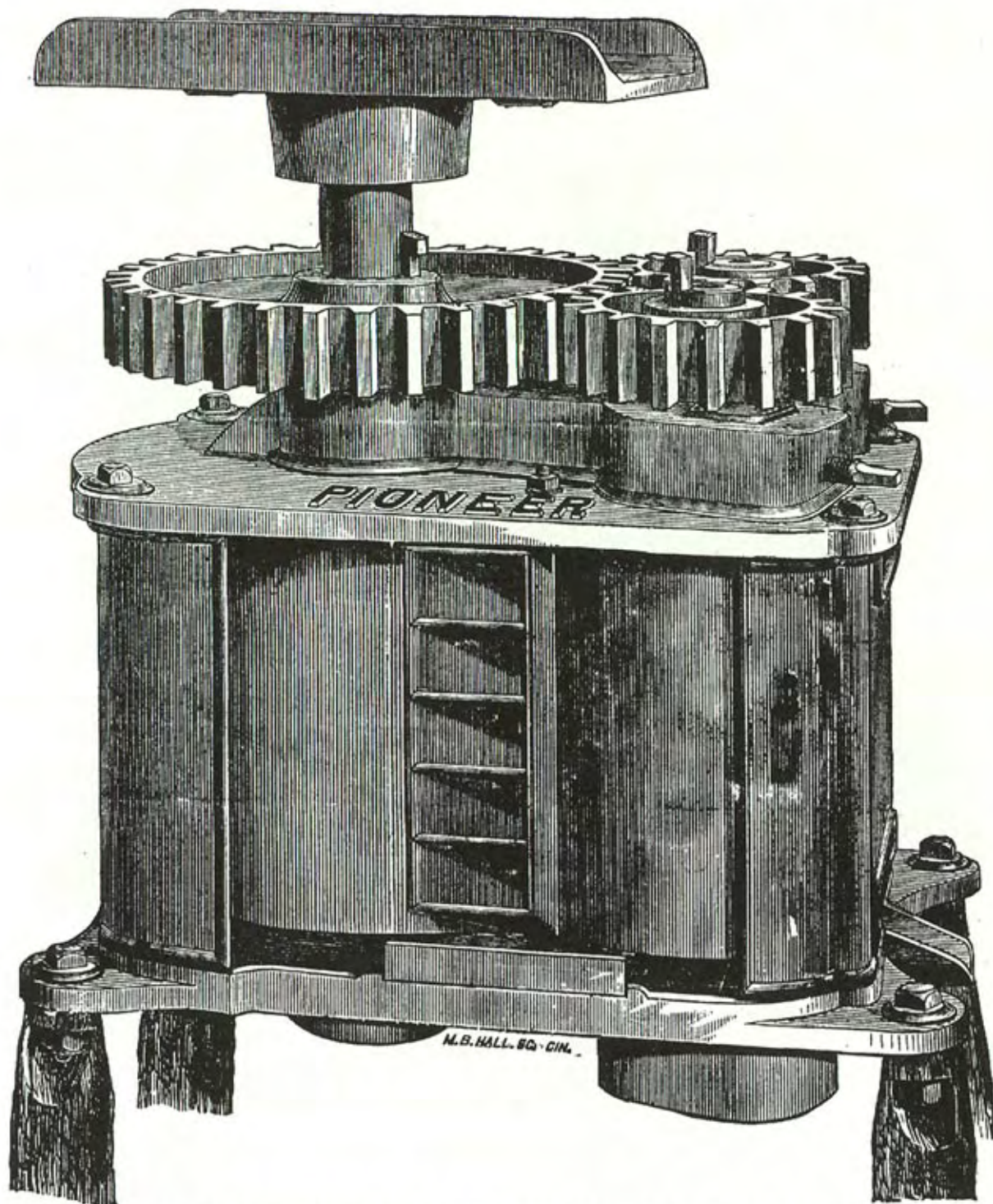


WITH DIRECTIONS FOR SETTING UP AND USING CANE MILLS

---

**MANNY & CO., Manufacturers,**  
Corner Third and Lombard Streets, - - ST. LOUIS, MO.

# THE PIONEER CANE MILL.



## WITH NEW PATTERN FEED BOX,

which has partitions sloping inwards to prevent over-crowding the lower part of the rolls, and save Juice by conveying it into the mill instead of allowing it to run down the drooping cane.

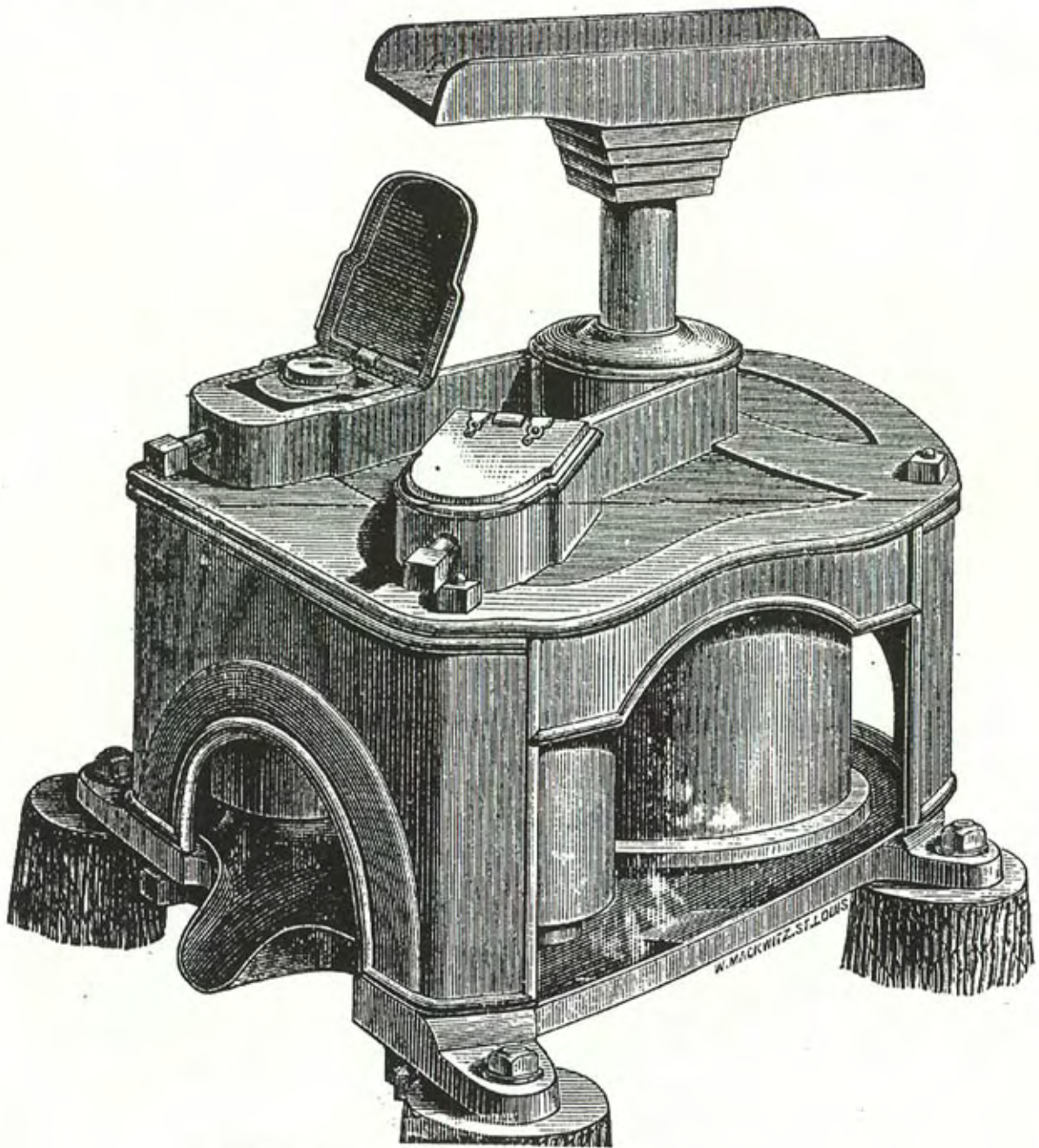
TOP GEARED, THREE ROLLS. PATENT BRIDGE. WROUGHT IRON SHAFTS,  
WITH FEED BOX, TURNED BEARINGS AND LATHE TURNED ROLLS.

Look out for imitations with cast-iron shafts, bearings unturned, rolls with unturned and uneven faces, and no bridge or feed-box.

No.	Main Roll.	Small Roll.	Estimated Capacity.	Weight.	Price.
00	6 x 10	6 x 6	2 to 8 acres.	850 lbs.	\$44 00
1	7 x 12	7 x 8	4 to 5 acres.	550 lbs.	65 00
2	8 x 16	8 x 8	5 to 8 acres.	750 lbs.	80 00
8	12 x 16	12 x 8	8 to 18 acres.	1000 lbs.	100 00

Prices are for mills delivered in St. Louis. No back freight

# THE GREAT SOUTH-WESTERN



## SUGAR CANE MILLS.

These mills have ample strength for crushing Sugar or Ribbon Cane as well as Sorghum.

IN COMPARING THESE MILLS WITH THE VICTOR AND OTHERS, BEAR IN MIND THAT THE WEIGHTS GIVEN INCLUDE THE SOLID METAL ONLY. THE ROLLERS ARE NOT FILLED WITH SAND TO INCREASE THE WEIGHT WITHOUT ADDING TO THE STRENGTH.

The Great South-Western Sugar Mills are sold at more reasonable rates than any others, are fully warranted, and rest the claims for superiority upon their merits.

The oil tight boxes, movable sweep cap, cleaning scrapers, driving gear by clutches and without the use of any keys, are points in these mills which are fully covered by patent, and the manufacture, purchase or use of any other mill made in imitation of this, is an infringement, which will be promptly prosecuted.

**MANNY & CO., Manufacturers,**  
Cor. Third and Lombard Streets, - - - ST. LOUIS, MO

# THE GREAT SOUTH-WESTERN SUGAR CANE MILLS.

## GEARING AND ROLLERS CAST SEPARATE.

The cog gearing is cast separate from the rollers, and is made very heavy, with two clutches on each wheel, which fit into two corresponding ones in each roller, doing away with all keys and the consequent danger of splitting the wheels when they are driven too tight, also enabling any one to take the mill apart by removing four bolts.

## NO EXPENSIVE BREAKAGES.

As the giving away of a cog is remedied at a very small expense, by simply replacing a gear wheel.

*Look out for Mills which have the gear and roller cast in one piece, and in which the breakage of a single cog involves the purchase of an entire roll, and Freight or Express charges on the same, costing \$6.00 to \$100.00 according to the size of the Mill.*

## THE STEP BOXES ARE PROVIDED WITH OIL CHAMBERS,

which hold nearly half a pint, and are so constructed as to prevent any oil from getting into the juice.

## BOTH TOP AND BOTTOM JOURNALS RUN IN BRASS BOXES,

making the mill work smoothly and easily, and saving the annoying delays and expenses inevitable in replacing chilled iron or babbitted boxes used in other mills.

**These Mills all have wrought iron shafts with turned bearings, rollers turned with serrated faces, enabling a regular and constant feed to be maintained.**

## THE MAIN ROLLERS ARE FLANGED

at top and bottom, preventing the cane from passing either up or down, and rendering the feed-box unnecessary, as the mills are made of sufficient strength to crush the cane as fed the entire length of rollers. The sweep cap fits the driving shaft with a square eye, and may be removed at pleasure.

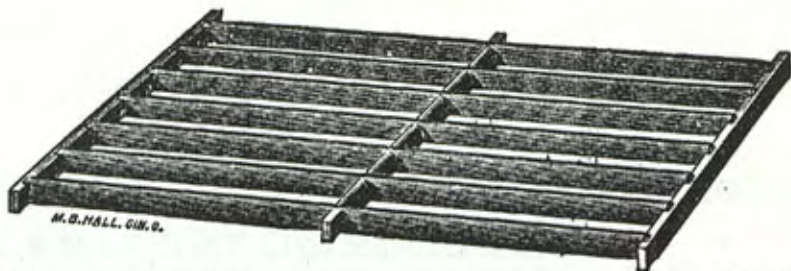
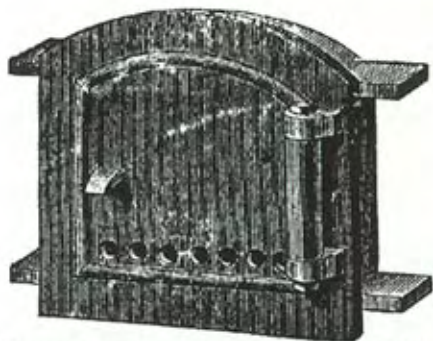
## THE GEARING IS ENCASED,

preventing it from being clogged, and making it entirely safe to the operator.

NO.	POWER.	MAIN ROLL.	SMALL ROLLS.	Est'd Capacity.	Weight	Price.
0.	Light one-horse.	5 in. long x 9 in. dia.	5 in. long x 6 in. dia.	30 to 40 galls.	375	\$ 55 00
1.	Reg'lr. "	6 ¼ in. " x 10 "	6 ¼ in. " x 7 "	40 to 50 "	475	70 00
2.	Heavy "	6 ½ in. " x 12 "	6 ½ in. " x 7 "	60 to 70 "	575	85 00
3.	Reg. two-horse.	7 ½ in. " x 14 "	7 ½ in. " x 8 "	80 to 90 "	825	100 00
4.	Heavy "	9 ½ in. " x 16 "	9 ½ in. " x 8 "	90 to 110 "	935	115 00

All the weights given above include the solid metal only, and in buying the Great South-Western Mills you will not pay freight on from 100 to 300 pounds of sand put in the rolls to increase the weight without adding to the strength.

## IRONS FOR BRICK FURNACES.



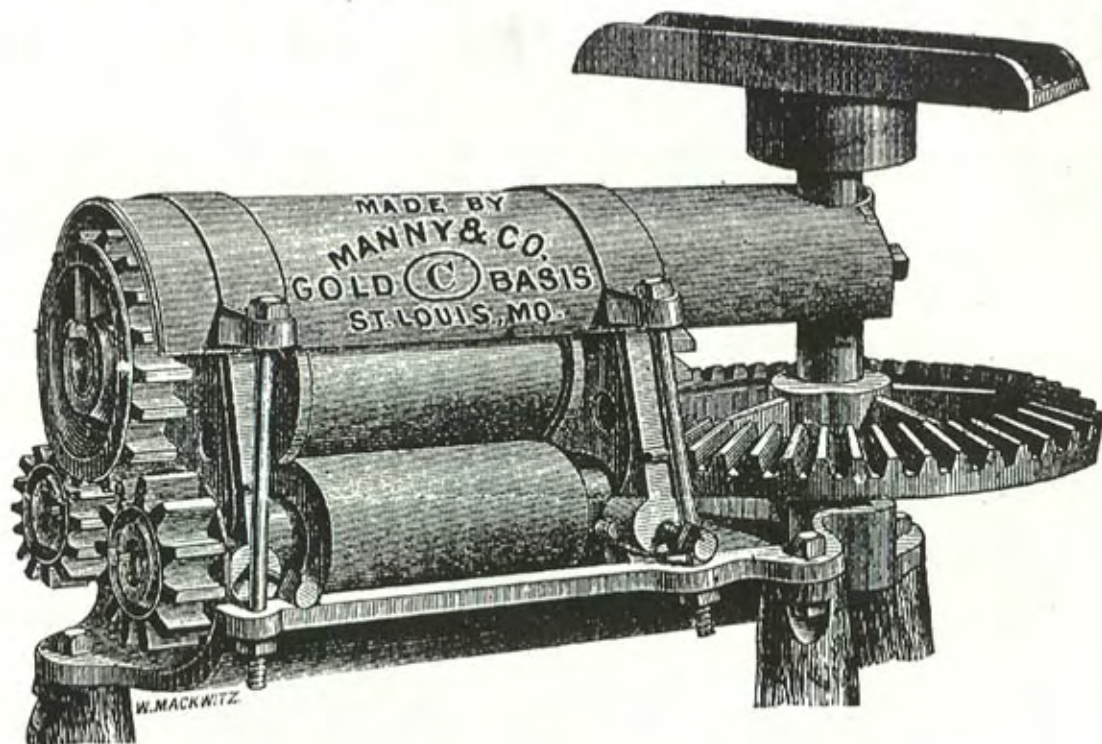
Heavy Furnace Door and Frame, 16 by 18 inches, weight 75 lbs .....	\$6 00
Furnace Grate, 18 by 33 inches, weight 35 lbs .....	3 00
Bottoms for Evaporator Pans, punched, Galvanized Iron, 30 x 96 .....	6 00

**MANNY & CO., Manufacturers,**

**Corner Third and Lombard Streets, - - ST. LOUIS, MO.**

July 15th, 1880

# THE IMPROVED GOLD BASIS



## HORIZONTAL SUGAR CANE MILL.

THE MOST VALUABLE IMPROVEMENT EVER MADE IN CANE MACHINERY.

THE CAPACITY OF THIS MILL IS EQUAL TO THAT OF ANY VERTICAL OR UPRIGHT MILL OF TWICE THE WEIGHT AND DOUBLE THE PRICE.

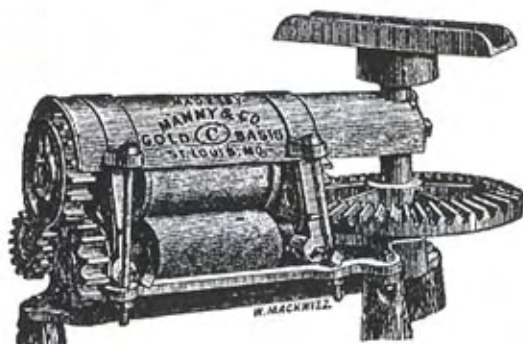
Nearly every purchaser of a cane mill selects with more regard to the price his crop will justify him in paying, than from the capacity which will enable him to work most economically, and frequently it is found after the mill is set up and in operation, that it will not do more than one-half as much work as is desired.

THE CAPACITY OF THE GOLD BASIS HORIZONTAL MILL NO. A., WEIGHING 560 LBS., AND ONLY COSTING \$75.00, IS 60 GALLONS PER HOUR; OF THE NO. B. MILL, WEIGHING 660 LBS., AND COSTING ONLY \$85.00, 75 GALLONS PER HOUR; AND OF THE NO. C. MILL, WEIGHING 845 LBS., 100 GALLONS PER HOUR, AS CAN BE SHOWN BY CERTIFICATES FROM THOSE WHO HAVE USED THEM TO THEIR ENTIRE SATISFACTION.

**COMPARE WITH THE WEIGHTS AND PRICES OF UPRIGHT MILLS CLAIMING THE SAME CAPACITY.**

**MANNY & CO., Manufacturers,  
Cor. Third and Lombard Streets, - - ST. LOUIS, MO.**

# THE IMPROVED GOLD BASIS



## HORIZONTAL CANE MILL.

In the Gold Basis Horizontal Sugar Cane Mill the main roller is geared to make three revolutions—where the main roll in the Vertical or Upright Cane Mill makes only one—hence, in comparing this Mill with the Vertical, notice that the length or diameter of its main roll can only be equaled in an upright Mill by a main roll having three times its diameter or length.

The power required to do the same amount of work is much less than in a Vertical Mill, in which three times as much cane must be inserted at one time.

Great difficulty attends the feeding of Vertical Mills; the tendency of the cane to work down and, lapping, to form a bundle at the bottom which cannot be crushed or pressed dry, while the upper stalks are not broken at all; the cane will constantly work under the rollers, working into shreds, which mix with the juice, finally forming a mass to clog the Mill, and at all times greatly increasing the friction; the bagasse in passing out will dip into and absorb the juice, causing another waste.

In this Horizontal Mill all these difficulties are prevented. The cane is fed with the stalks side by side, without any crowding or lapping, without their getting into the working parts of the Mill, and without any possibility of clogging, choking or re-absorbing the juice, and with a certainty that each and every cane will be crushed and pressed perfectly and evenly dry.

The oil used in lubricating the Mill is prevented from mixing with the juice by the solid plates which are placed between the rollers and the boxes.

The peculiar construction of this Mill is that of a barrel, in which the strength is to withstand the pressure from within, and in which the greatest strength can be obtained with the least weight.

The pressure of the rollers can be regulated by set screws. The shafts are all made of wrought iron, and run in babbitted boxes, which can be refilled, when worn, at a trifling expense. The rollers are turned to a true circle and straight surface, and the upper one is provided with flanges at each end. The end gearing is very heavy, the main pinion having a flange at its cogs, and the whole covered with a shield, obviating all danger to the operator in feeding.

The feed-side of the Mill is the one opposite to that shown in the cut, and the frame is made to form a perfect feed-box. These Mills are nicely made, smoothly finished, painted red and green, with bronze ornaments.

### PRICES.

NO.	SIZE.	LOWER ROLLERS.	UPPER ROLLERS.	ESTIMATED CAPACITY.	WEIGHT.	PRICE.
A.	One-Horse.	6 x 6 ½	9 x 6 ½	60 gal pr hr.	560	\$ 70 00
B.	1 or 2 Horse.	6 x 10 ½	9 x 10 ½	75 " "	660	85 00
C.	Two-Horse.	6 x 12	9 x 12	100 " "	845	100 00

### NOTICE THE IMPROVEMENTS.

A very close observation of the working of the GOLD BASIS HORIZONTAL MILL during the past two years has enabled us to greatly improve them in many respects, viz: A more even distribution of the metal in the parts as required by the strain upon them; an increase of from 60 to 145 lbs. in weight; increased length of bearings; capacity for grinding larger canes, by increasing the distance at which the feed roll may be set from the main roll.

Look out for imitations. Unscrupulous parties have even copied our illustrations and printed circulars—and paint their mills in similar colors—but a close inspection—not of their printed circulars, but of their mills—will reveal their deficiencies in weight, strength, capacity, workmanship and material.

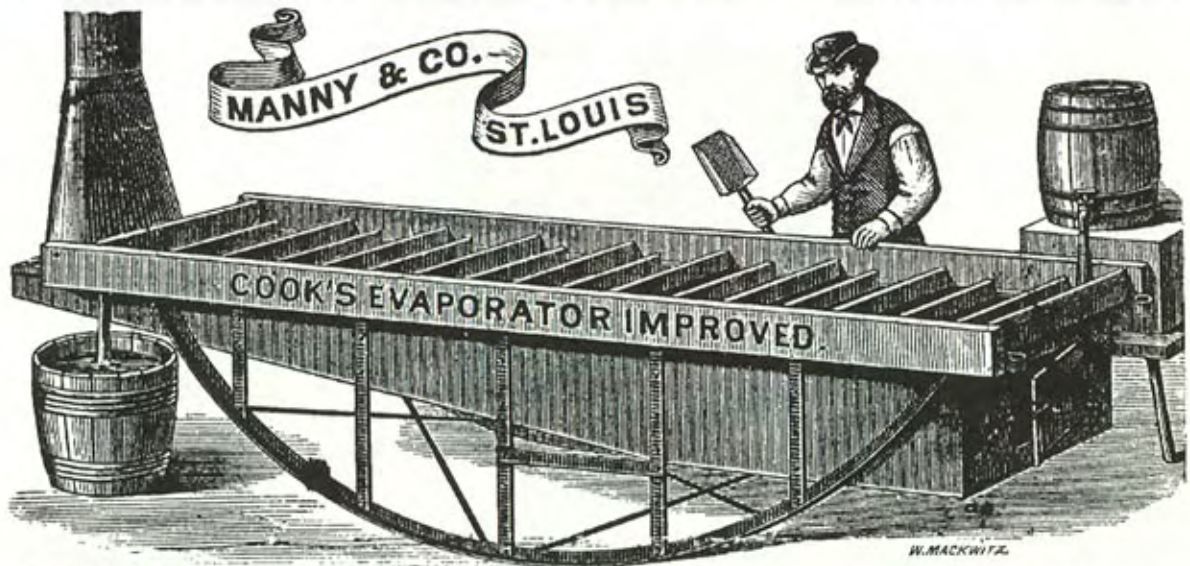
"It is not the time to swap horses when crossing a stream;" and there will be no time to send for a Gold Basis Horizontal Cane Mill after another has been purchased, tried and failed.

Our name, address and trade-mark is cast on each and every Mill—a facsimile or that shown in the cut.

Made by MANNY & CO.,

Cor. Third and Lombard Streets, - - ST. LOUIS, MO.

# COOK'S EVAPORATOR IMPROVED



**SOLID BOTTOMS.**

**NO SOLDERED SEAMS OVER THE FIRE.**

These Evaporating Pans are made of Galvanized Sheet Iron—of thickness proportions to the length of the pan. This sheet metal is made *expressly for this use*, and is of the *best quality*, and of *uniform thickness*. Inferior grades, such as are used with ordinary evaporators, can not be used in the Cook on account of the *heavy strain* to which it is subjected in crimping the ledges or partitions. This is done by *pressing the solid sheet with heavy machinery*, especially constructed for the purpose. Only the *toughest of metals will stand the strain*, and so only the best of Juniata galvanized iron is used. Hence these Pans *last longer by years* than others, and neither buckle, bag, nor warp, nor incur expense for repairs.

At intervals of about six inches, ledges or partitions are made to project upward across the bottom of the pan, the alternate ends being open, so as to form a continuous channel from one end of the pan to the other. The sides of the pan extend beyond the fire line of the furnace, so as to give a cooling surface for the collection of the scum.

The ledges, or partitions, are *open* at the bottom, being crimped or pressed, as explained above, out of the solid metal. They are  $1\frac{1}{2}$  inches high, and each contains 3 inches of heating surface. As the ledges are 6 inches apart, this gives about  $\frac{1}{2}$  more heating surface than other pans of same length, and requires about  $\frac{1}{2}$  more metal. A sheet  $9\frac{1}{2}$  feet in length makes a pan 6 feet in length.

A Cook Pan has therefore  $\frac{1}{2}$  more heating surface and capacity than other pans of equal length. But its proportionate capacity is still further increased by the Process of Evaporation—the use of a shallow flowing body of juice.

The Cook Pan could be made at less cost by riveting or soldering the ledges to the pan, instead of crimping them in the solid sheet, as the inferior grades of metal could then be used, and it would take a smaller sheet to make the same size pan.

But in doing this, not only would the capacity of the pan be greatly lessened, but the pan itself would be inferior in every way. It would not do nearly as much work, and would not last half so long. It would be liable to give continual trouble by leakage, resulting in the discoloring and burning of the syrup.

The juice is received into the front end of the pan in a constant stream. The first ledge preventing a forward movement, it flows across the pan,—turns round the open end of the ledge,—back to the side upon which it entered,—then round the second ledge,—thence back again to the opposite side and so on until it reaches the outlet at the finishing end of the pan, whence it flows off in a constant stream at any density desired.

The constant influx of the cold, raw juice keeps the liquid in the front end of the pan at a comparatively lower temperature while it is passing around the first few ledges, and thus gives time for the heat to throw up the more crude impurities; and the operator to remove them. And, as a matter of fact, most of the skimming is confined to a small space at this end of the pan. As the current passes an over the more intensely heated portions of the pan, new impurities are evolved and borne by the current to the cooling sides, where they remain in the form of scum, to be removed at the pleasure of the operator.

There being but a small amount of juice in the pan and that being spread over a broad extent of evaporating surface, every portion is subject to the direct and intense action of the heat, and consequently the *Evaporation is more rapid*, and the *Defecation and Clarification more thorough*, than is possible in any arrangement where the liquid is boiled in deep, narrow masses, and for a long time exposed to the heat. As the result, there is a *better quality of syrup and of lighter color*.

Cook's Patents cover the *Process of Evaporation* by boiling a moving body of juice, and any pan arranged in channels to make this practicable; also any *channeled pan in which a cooling surface is used* as a resting place for the scum; and any *pan arranged* (with rockers or otherwise) *so as to regulate the flow of juice over the bottom*.

IN ANY EVAPORATING PAN IT IS DANGEROUS TO HAVE ANY SOLDERED SEAMS OR RIVETS IN THAT PART OF THE BOTTOM WHICH COMES DIRECTLY OVER THE FIRE—THE MELTING OF THE SOLDER CAUSING LEAKS AND AGGRAVATING DELAYS. IN THE COOK, IT IS EVEN MORE SO THAN IN ANY OTHER, AS THE JUICE IS AT ALL TIMES VERY SHALLOW, AND WITH INEXPERIENCED OPERATORS, SOME PARTS OF THE PAN MAY BE DRY DIRECTLY OVER THE FIRE.

**The Cook Improved as made by us has no seam or solder in any part of the bottom which comes in contact with the fire.**

Look out for this valuable improvement, and do not purchase any imitation. Our name, address and date of patents will be found on every pan.

## PORTABLE EVAPORATORS

For the Nos. 2, 3 and 4 pans, portable furnaces are provided as shown in the preceding cut. These are made of cast iron and sheet iron, heavily bound and riveted, to be lined with brick, and the whole mounted upon rockers of angle iron, thus furnishing a complete portable furnace of iron and brick combined in one, with all the advantages of both, and yet so light that it be easily handled by two men. This is the most convenient arrangement for small home operations, and for custom work it is well-nigh indispensable. With it the operator can move from field to field, or from farm to farm, and thus avoid the labor and expense of hauling the cane.

## COOK'S FURNACE AND PANS.

PAN, TWO SKIMMERS, ROCKERS, GRATE AND CHIMNEY COMPLETE.

No. 2,	Galvan'd Iron Pan,	45 by 72 inches,	estimated capacity 40 to 50 gal. per day,	weight 335 lbs,	\$ 65 00
No. 3,	" " "	45 by 90 "	" " 55 to 75 " " "	" 370 "	75 00
No. 4,	" " "	45 by 108 "	" " 60 to 90 " " "	" 405 "	85 00



## COOK'S PAN FOR BRICK ARCH.

For stationary work on brick or stone arches, the same numbers may be used as on the portable furnaces as well as the larger Nos. 5, 6 and 7. The pans are made alike for either furnace, except that in the Nos. 5, 6 and 7 pans, gates are used to regulate the juice. The following list gives the sizes and prices;

No. 2,	Galvanized Iron Pan,	3¾ by 6 feet,	estimated capacity 40 to 50 gal. per day,	weight 100 lbs,	\$35 00
No. 3,	" " "	3¾ by 7½ feet,	" " 55 to 75 gal. per day,	weight 125 lbs,	40 00
No. 4,	" " "	3¾ by 9 feet,	" " 60 to 90 gal. per day,	weight 125 lbs,	50 00
No. 5,	" " "	3¾ by 10½ feet,	" " 90 to 130 gal. per day,	weight 125 lbs,	65 00
No. 6,	" " "	3¾ by 12 feet,	" " 120 to 160 gal. per day,	weight 125 lbs,	75 00
No. 7,	" " "	3¾ by 15 feet,	" " 130 to 180 gal. per day,	weight 125 lbs,	90 00

**MANNY & CO., Manufacturers,**

**Cor. Third and Lombard Streets, - - ST. LOUIS, MO.**



# Directions for Setting Up and Using Cane Mills

---

Whilst it is all important that a mill should be perfect in its material and plan of construction, it is also a matter of much moment that it should be properly worked. Ignorance or carelessness on the part of the operator, no less than defects in the mill, will produce unsatisfactory results. This is too often forgotten, and not unfrequently the reputation of the best mills is made to suffer simply from a want of knowledge or care on the part of those working them.

Set the mill firmly and level upon posts or frame. If upon posts, let them be six feet long and set three feet deep in the ground, and firmly braced to each other. If on a frame, let it be strong, and all the parts firmly knit together. An uneven or unsteady support will throw the parts of the mill out of their proper line, and thus not only impede its operations, but also tender it liable to breakage.

Set the feed roll one-quarter to one-half of an inch from the master roll, varying the opening to suit the size of the cane, and the discharge roll about one-sixteenth of an inch.

The intelligent operator will see at once that the first roll is intended for crushing only and the last for pressing the cane. As the acids and crude sap of the woody portion, and the chlorophyl, or the coloring matter of the stalk, injure the quality of the syrup, it is better to let some juice escape than by too close pressing to force these into the evaporator. Keep the faces of the rolls parallel. This is easily done by set screws at the top and bottom journals.

Use stiff sweep 12 to 13 feet long, and if the mill is a small one, let the left end project so as to partially balance the weight of the other.

Oil the journals well before starting and keep them well oiled while working.

Feed the canes butt foremost, but do not crowd the opening. Regular even feeding will accomplish more work.

*Purchasers will bear in mind that however simple and perfect any mechanical invention nothing can be made of wood and metal which will possess the discriminating and directing powers of the human mind, and that in supplying any machine at the very low rate charged for the mechanical part, it cannot be undertaken to furnish the BRAINS to operate it also. No implement can operate to its full capacity, in quantity and quality if work, without skilled and careful direction.*

---

## WARRANTY.

These mills and evaporators are warranted to be well made, of good materials, and to work well when properly managed, and, while their capacity is estimated as accurately as it can be ascertained from those who have used them; the size, quality, and condition of the cane; the speed and regularity of the power, and the industry and skill of the operators, vary so largely—and being entirely beyond our control—we cannot guarantee capacity.

Printed and written directions will be furnished when necessary, which, if closely followed, will be found sufficient.

---

*All orders for extras must clearly describe, by number, letter, or diagram, the parts wanted, and any failure so to do will be at the risk and expense of the party ordering. Where defects exist in any part of an implement, upon the return of the part showing the defect—FREIGHT CHARGES PREPAID, AND NOT OTHERWISE—duplicate will be sent, free of charge; but any return of the IMPLEMENT will not be received for a defect in any PART of the same.*

---

**MANNY & CO., Manufacturers,**  
**N.W. Cor. Third and Lombard Streets, - - ST. LOUIS, MO.**