

(No Model.)

2 Sheets—Sheet 1.

G. GAMLEN.
COMBINED SQUEEZER AND STRAINER.

No. 434,128.

Patented Aug. 12, 1890.

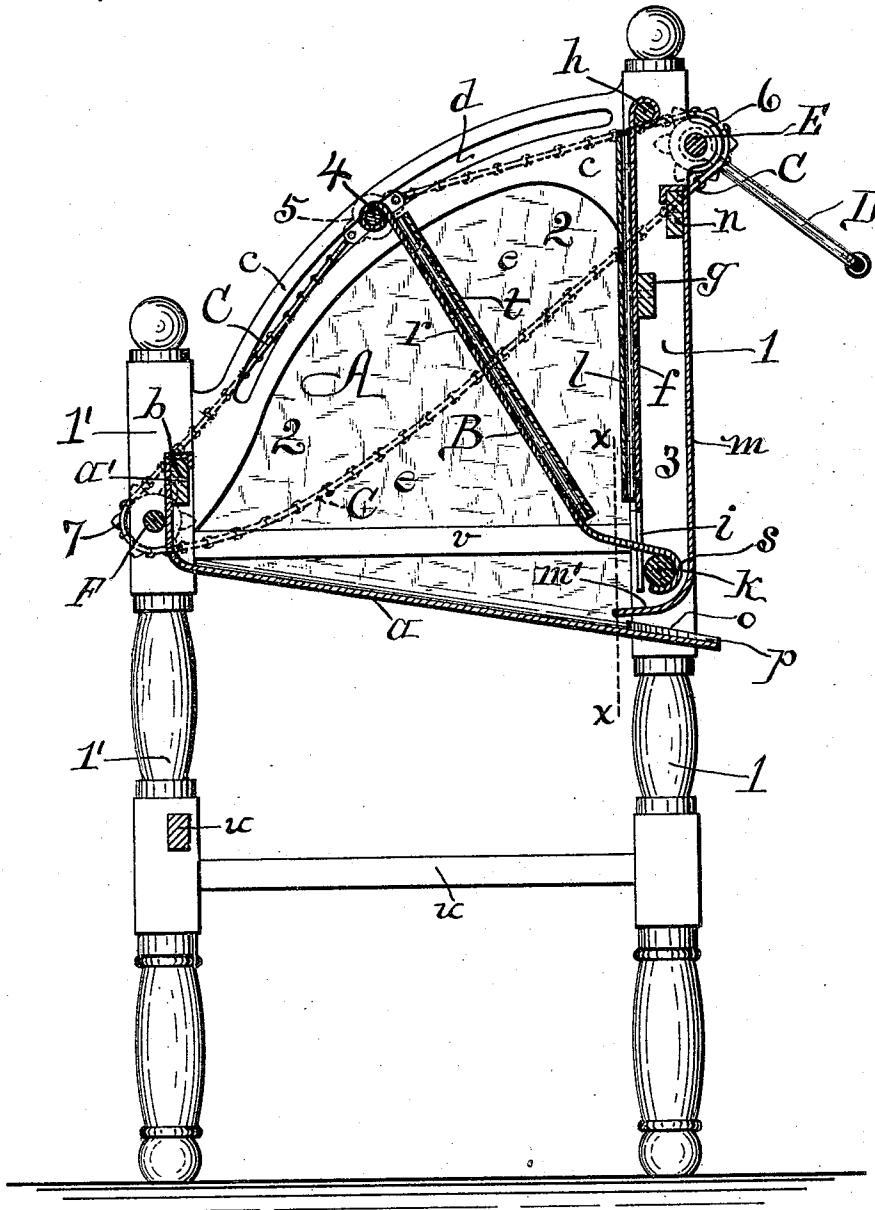


FIG-1-

Witnesses—

Morgan A. Dunn.
Wm Woodward.

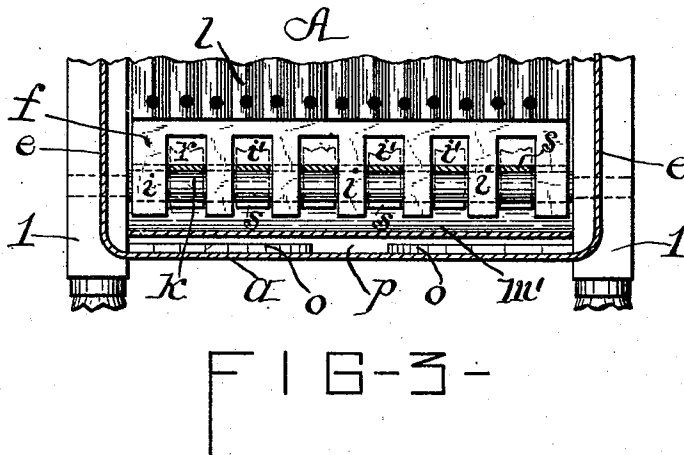
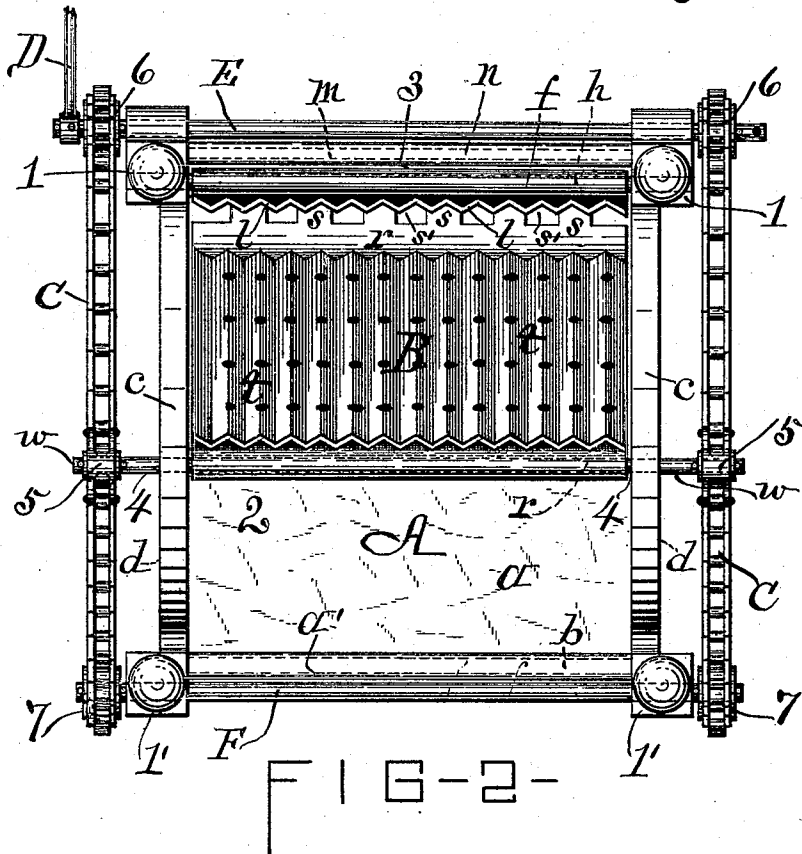
Inventor—

George Gamlen,
By his Attorney—
Cm C. Raymond.

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UNITED STATES PATENT OFFICE.

GEORGE GAMLEN, OF SCIPIOVILLE, NEW YORK.

COMBINED SQUEEZER AND STRAINER.

SPECIFICATION forming part of Letters Patent No. 434,128, dated August 12, 1890.

Application filed April 11, 1890. Serial No. 347,558. (No model.)

To all whom it may concern:

Be it known that I, GEORGE GAMLEN, a citizen of the United States, residing at Scpioville, in the county of Cayuga and State of New York, have invented certain new and useful Improvements in Combined Squeezers and Strainers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, in which—

Figure 1 is a sectional elevation of my combined squeezer and strainer; Fig. 2, a top plan view thereof; and Fig. 3, a fragmentary vertical section taken on line *x x*, Fig. 1.

Similar letters and figures of reference denote corresponding parts throughout the various views.

The object of my invention is to produce a squeezer and strainer combined (or a press) adapted to squeeze or expel water or other fluids from mops, cloths, &c., or press and macerate fruits of different kinds and straining the juices therefrom, carrying same to one common channel for precipitation into a suitable receptacle, and furnishing a squeezing and straining device particularly applicable and useful for household and other domestic or private or family service or use.

My invention consists in the several novel features of construction and operation hereinafter described, and which are specifically enumerated in the clauses of claim hereto annexed. It is constructed as follows:

A is the stationary body portion thereof supported at a desired height by vertical front legs or supports 1 and vertical rear legs or supports 1', said forward legs or standards extending upwardly a greater height than the rear legs or standards. The body portion A, that is of rectangular form horizontally, is rigidly secured at the respective corners or angles to a supporting leg or standard 1 or 1'. This body portion (open at its top) is provided with a slightly-inclined bottom plate *a*, whose direction of inclination is downward toward and to the front of the machine, said bottom-plate piece rearwardly being bent upwardly vertical a brief distance and thereat creating a rear wall *a'*, whose upper portion abuts

against and partially encompasses by a bend a horizontal cross-piece *b*, which extends from one rear leg or standard 1' to the opposite one, and thus bracingly securing them in place as well as serving for a support for the integral plate *a a'* at the rear, while the bottom plate *a* at its forward portion is secured in place by its side edges entering slightly into the front standards or legs 1 1, or other satisfactory manner.

The body portion A comprises at either side a segmental side strip or plate of wood or metal *c*, as shown, the rising forward portion of said segmental plate being secured to the front leg or standard 1 at its upper extremity and the lower descending portion secured to the shorter leg or standard 1' at its upper extremity. Said plates *c* are provided with a slot *d*, lineally therewith, and of corresponding arc shape longitudinally.

From or near the lower curved edge of the segmental side strips *c*, and secured thereto, extend vertically downward the metallic side plates *e e*, that are integral with the bottom plate *a*, or else extend to and are connected therewith. At the forward portion of the body I erect transversely a vertically-disposed plate *f*, abutting against and secured to a transverse horizontal cross-piece *g*, which extends from side to side, and said plate at its upper termination (about in line with forward end of curved slots *d*) passing around a horizontal transverse supporting-rod *h*, which extends from side to side of the body or standards. These aforementioned parts constitute, in conjunction, the operating-chamber Q of the machine.

The lower portion of the plate *f* terminates in a series of fingers or projections *i*, (separated by slots or openings *i'*), that bear against the transverse cylindrical axle or rod *k*, extending horizontally from side to side and secured (preferably rigidly) in the opposite legs or standards 1 1. To the inner face of the vertical plate *f* (that substantially extends from one post 1 to the opposite post) I secure, by riveting or otherwise, a corrugated metallic plate *l*, suitably perforated, and the back supporting-plate *f* is similarly perforated. The corrugated plate *l* extends upwardly to about the top of the supporting or

stiffening plate *f*, and downwardly to about where the slotted portion or finger-projections start.

Forwardly of the plate *f*, I create a passage 3, formed by the aforesaid plate *f*, in conjunction with a vertical metallic plate *m*, disposed a suitable distance therefrom at the front of the machine, and secured edgewise to the standards by any suitable means, the said plate at its top portion overlapping and being thereby secured to a horizontal transverse bar *n*, while at its bottom portion it is curved in such manner as to extend horizontally inward into the operating-chamber a short distance, and thereby forming a shelf portion *m'*, as shown. This portion is out of contact with the adjacent parts, and is, moreover, a short distance above the bottom plate *a* of the apparatus. Upon said bottom plate *a*, at either side of its forward portion, are low vertical guide-strips *o o*, converging toward each other forwardly and leaving between their extremities a narrow central opening or guideway *p*.

B represents the compressor, pivotally mounted and facing throughout the greater portion of its length the stationary perforated corrugated plate *l*, and comprising a flat metallic plate *r* of rectangular form, its upper end being curved and surrounding loosely a cylindrical horizontally-disposed carrying-rod 4, arranged transversely the chamber 2, whose extremities *w w*, extending a distance beyond the lateral edges of the plate *r*, protrude through and lie movably within its encompassing slot *d* of the curved side plate *c* at either chamber side, and at its lower portion the said plate *r* curvilinearly extends to and semicircularly surrounds in loose contact the axle or rod *k* by means of its curved fingers or projections *s*, separated one from the other by slots *s'*.

To the front face of the plate *r* of the compressor *B* there is secured, by riveting or otherwise, a corrugated plate *t*, suitably perforated, while the re-enforcing or retaining plate *r* is similarly perforated and in line therewith.

5 5 are traveling boxes, in which the free extremities *w w* of the carrying-rod 4 are journaled or otherwise inserted, the said boxes having ears at their circumferential sides, to which is pivotally secured a chain or link belt *C*, which continuously extends to and around the sprocket-wheels 6 7, journaled at the external sides of the apparatus upon the legs or standards 1 1 and 1' 1', respectively, as shown; and *D* is a manipulating-handle for operating the sprocket-wheels 6 6, and thereby, through the link-belt connection with the rear sprockets 7 7, imparting motion to the compressor *B* either forward or rearward, according to the direction in which the sprockets 6 are rotated.

65 It will be perceived that the sprockets 6 6 are keyed to the respective ends of a rotating axle *E*, mounted in proper bearings and ex-

tending horizontally from side to side of my apparatus; also, that the sprockets 7 7 are similarly secured upon a like axle *F* at the rear end of the machine.

v are side horizontal tie-bars arranged longitudinally, designed for bracingly strengthening the body portion *A* of the device, and *u u* are also tie-bars or stays.

As is apparent, the semicircularly-curved fingers *s* of the plate *r* pass freely between the fingers *i* of the stationary plate *f*, and thence pass partly around, in loose pivotal contact, the preferably rigid bar or axle *k*, on which they are adapted to turn.

The operation of my device is substantially as follows: The article or articles to be squeezed—as, for instance, wet mop-cloths, clothing, or other saturated textile fabrics, or apples, grapes, currants, or other fruits, enclosed in loosely-woven bags or otherwise—are disposed upon or in front of the perforated corrugated plate *t* of the compressor *B*, whereupon the handle *D* is turned by the operator in such direction as to impel forwardly the compressor pivotally connected to the stationary axle *k* by reason of the indirect link-belt connection with the upper part of the compressor *B*, and the article or articles thereby being thoroughly pressed or macerated between the corrugated plate *t* of the compressor *B* and the stationary corrugated plate *l* of the front wall of the operating-chamber, the moisture, water, or juices contained in the article or articles undergoing pressure is expelled therefrom and flows or percolates through the coincident perforations in the plates *t r* of the compressor *B* and downward upon the bottom plate *a*, and also through the coincident perforations in the stationary plates *l f*, and thence down the vertical passage 3 onto the shelf portion *m'*, and thence over its edge onto the bottom plate *a* at a point just beyond the commencement of the guideway *p* thereon, and also to a slight degree, perhaps, directly downward through the narrow slots *s'* of the lower portion of the plate *r* of the compressor and onto the bottom plate *a* of the chamber, all the water, juices, or other liquids passing through the convergent guideway *p*, whence they drop into any suitable utensil placed upon the floor beneath the forward discharge end of the said guideway *p*. To release the pressure upon the article or articles that have been squeezed, the turning of the handle *D* in an opposite direction to that first given carries the compressor *B* rearwardly and in position for further usage.

It is obvious that by my manner or means employed in the construction, pivoting, and moving of the compressor a powerful, direct, and even pressure thereof is assured; and it is obvious that my device as employed as a combined squeezer and strainer for the numerous and varied uses it is applicable to in a household is of immeasurable value for general family use.

The back plate *r*, to which the corrugated

plate *t* of the compressor is secured, and the plate *f*, behind the corrugated plate *l* of the stationary wall, serve to brace, stay, and stiffen the attached corrugated plates, insuring greater effectiveness.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

In a combined squeezer and strainer, a body portion mounted upon suitable supporting-legs and comprising an inclined bottom, segmental side pieces provided with a segmental longitudinal slot, side plates extending therefrom to the inclined bottom, a rear vertical wall connected to said inclined bottom, a front chamber-wall comprising a transversely-disposed perforated vertical plate having a perforated corrugated plate attached in rear thereof, a vertical passage created by a transversely-disposed vertical plate secured at a distance from the aforementioned chamber-wall, the said plate being curved horizontally at its lower portion and creating a shelf-extension thereat, a compressor mounted within the operating-chamber proper of the apparatus

and comprising a main supporting-plate suitably perforated, with a perforated corrugated plate secured to its front face, said main or supporting plate being pivotally secured at its lower extremity to a horizontal rod or axle, and at its upper extremity to a horizontal carrying-rod having protruding extremities lying movably within the slot of the respective segmental side pieces of the body, and thence outwardly journaled in traveling boxes adapted to move longitudinally with the body by means of link belts connected thereto and passing to and around sprockets journaled at both the front and rear portions of the body of the machine, and an operating-handle for imparting motion to a sprocket or sprockets, in combination, substantially as described, and for the purposes specified.

In testimony whereof I affix my signature, in presence of two witnesses, this 7th day of February, 1890.

GEORGE GAMLEN. [L. S.]

Witnesses:

WM. C. RAYMOND,
PETER RIDLEY.