

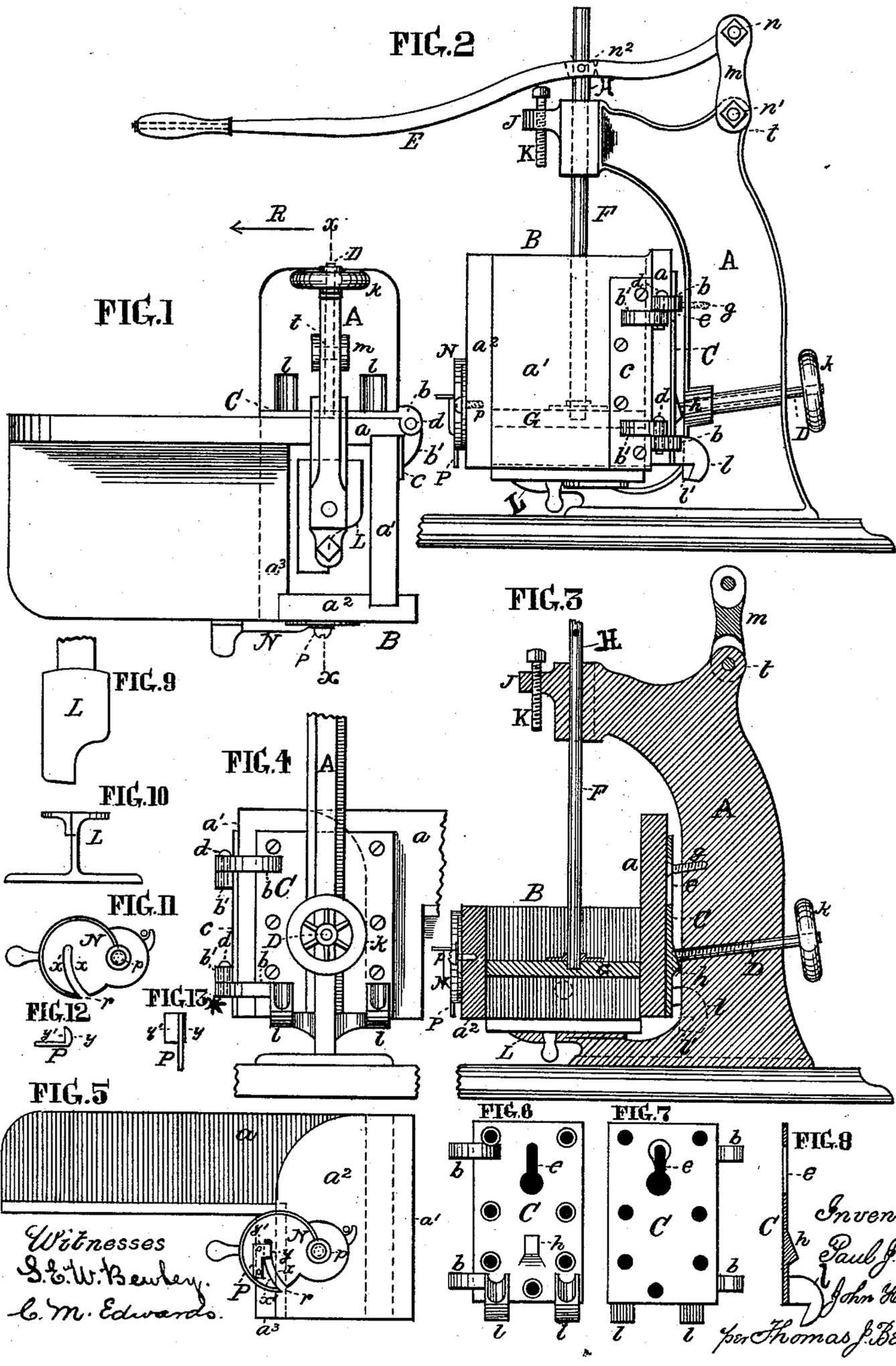
(No Model.)

2 Sheets—Sheet 1.

# P. J. REID & J. H. DUNBAR. BUTTER PRINTING MACHINE.

No. 349,121.

Patented Sept. 14, 1886.



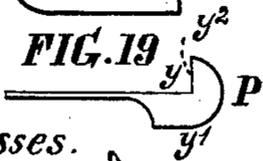
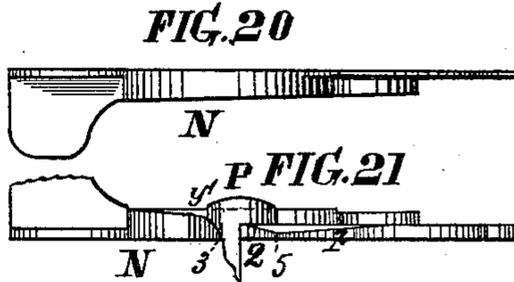
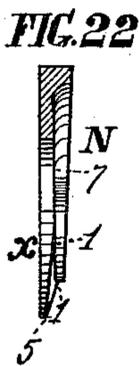
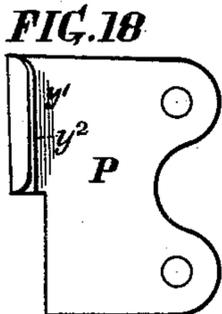
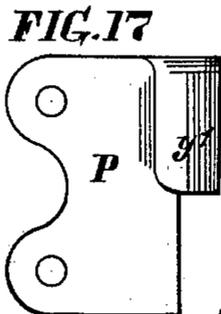
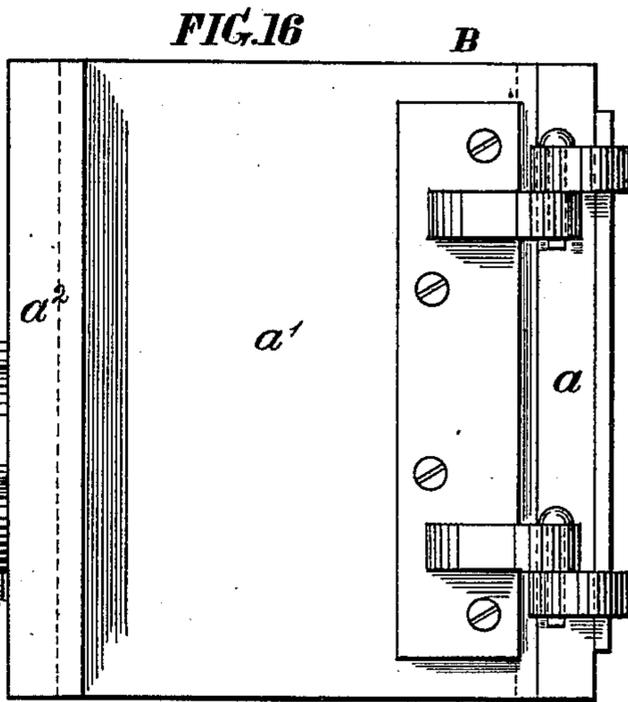
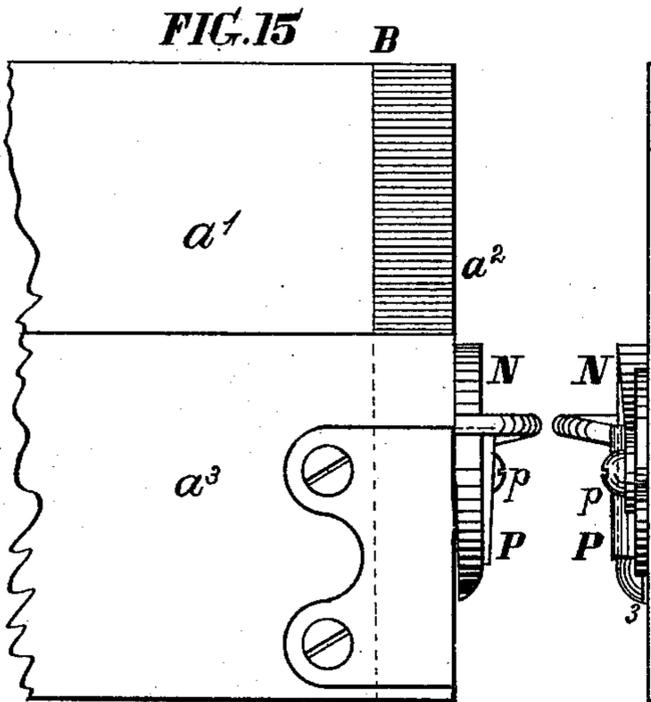
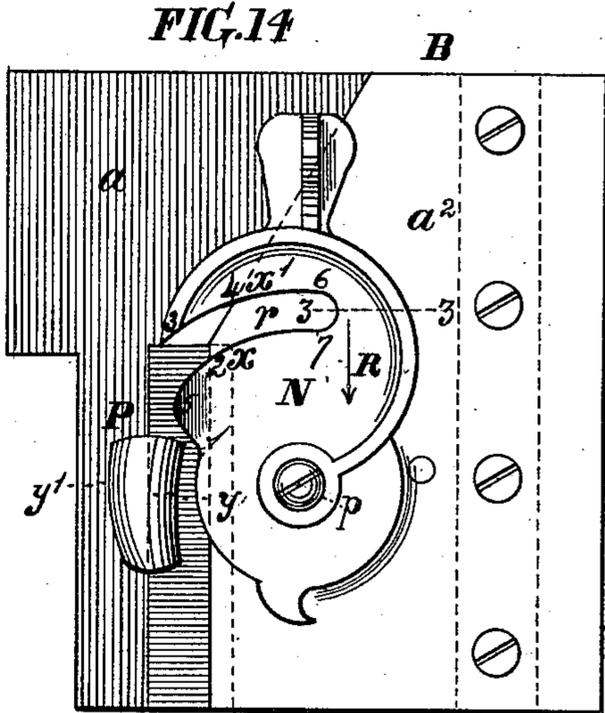
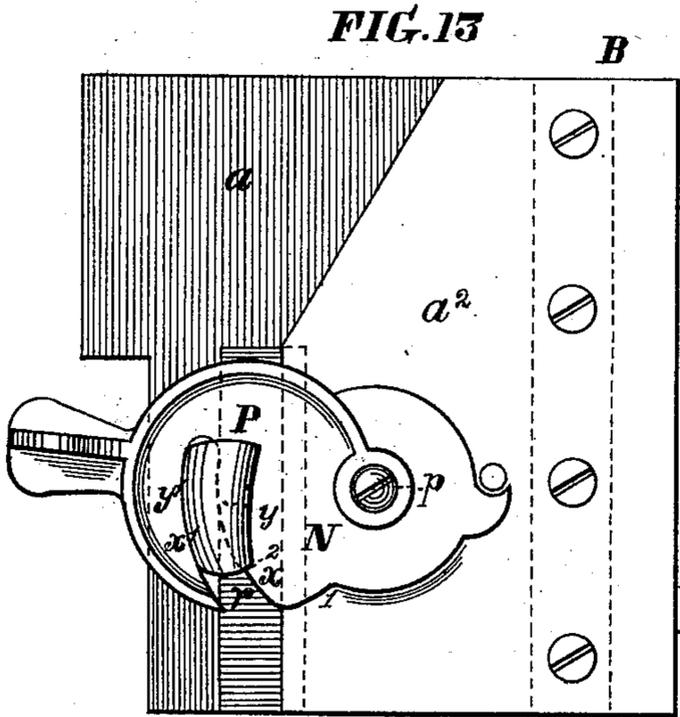
Witnesses  
*S. & W. Bewley.*  
*C. M. Edwards.*

Inventors  
*Paul J. Reid*  
*John H. Dunbar.*  
 per *Thomas J. Bewley*  
*att.*

P. J. REID & J. H. DUNBAR.  
BUTTER PRINTING MACHINE.

No. 349,121.

Patented Sept. 14, 1886.



Witnesses.  
S. Walton Smith.  
S. E. W. Bewley.

Inventors.  
Paul J. Reid.  
John H. Dunbar.  
per Thomas J. Bewley. atty.

# UNITED STATES PATENT OFFICE.

PAUL J. REID, OF LANCASTER, AND JOHN H. DUNBAR, OF PHILADELPHIA,  
ASSIGNORS TO CLEMENT & DUNBAR, OF PHILADELPHIA, PA.

## BUTTER-PRINTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 349,121, dated September 14, 1886.

Application filed March 23, 1886. Serial No. 196,304. (No model.)

*To all whom it may concern:*

Be it known that we, PAUL J. REID and JOHN H. DUNBAR, citizens of the United States, residing, respectively, at Lancaster, in the county of Lancaster and State of Pennsylvania, and at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Butter-Printing Machines, of which the following is a specification.

Our invention relates to the means employed for rigidly securing a detachable hopper to the standing frame of the machine; also to the arrangement, within a boss or stud projected from the front edge of the socket connected to the head of the frame, in which the plunger-rod has vertical reciprocating movements, of an upright set-screw capable of altitudinal adjustment, whereby when the lower edge of the operating-lever is brought into contact with the face of the head of said screw the depth of descent of the plunger-block within the hopper can be accurately determined, and to the combination, with a butter-printing machine, of a fastening device for securing together the walls of the sectional hopper during the pressing and printing operation.

The nature of the invention will be more fully understood from the following description.

In the accompanying drawings, which make a part of this specification, Figure 1 is a plan view of the improved machine with lever E removed. Fig. 2 is a side elevation. Fig. 3 is a vertical section taken through the line *x* of Fig. 1, in the direction of the arrow R. Fig. 4 is a rear end elevation. Fig. 5 is a face view of the front end of the hopper, showing the latch-connection; Figs. 6 and 7, views of the inner and outer faces of the plate C. Fig. 8 is a vertical sectional view of the plate C. Figs. 9 and 10 are a top or face and end views of the rest L. Fig. 11 is a face view of the latch-plate N. Figs. 12 and 13\* are top and side views of the stop P. Fig. 13 is a front view of the hopper B, with the latch-plate N in its closed position. Fig. 14 is a like view with the latch thrown up out of connection with the catch P. Figs. 15 and 16 are views of the opposite sides of the hopper, showing

like views of the latch-plate and catch. Figs. 17 and 18 are views of the inner and outer faces of the catch P. Fig. 19 is an end view of same. Fig. 20 is an upper edge view of the latch-plate. Fig. 21 is a view of the under edge of the latch in connection with the catch. Fig. 22 is a sectional view of the latch, taken through the broken line *z z* of Fig. 14, in the direction of the arrow R.

Like letters of reference in all the figures indicate like parts.

A is the standing frame of the machine; B, the hopper, to the rear wall, *a*, of which is secured the metallic plate C, having projections or lugs *b* at one edge, with which like lugs, *b'*, cast upon the plate *c*, secured upon the wall *a'* of the hopper, are connected together through central bores by means of pins *d*, forming a connecting-hinge for the halves.

The plate C has a slot, *e*, near its upper edge or end, having beveled edges upon its interior surface, with which a corresponding-shaped head of an adjustable set-screw, *g*, engages, the lower end of the slot being enlarged to permit of the entrance of said head, the object of this set-screw being to provide means, by reason of its adjustability, for the vertical alignment of the hopper with the plunger-shaft, and also to assist in securing the hopper upon the frame.

To the lower end of the plate C, near the opposite edges, are cast the lugs *l l*, beveled or inclined on their inner faces, hook-like, which fit over lugs *l' l'*, beveled in the opposite direction thereto, that project at right angles from the sides or faces of the frame A.

Upon the outer face of the plate C, contiguous to the edge of the frame A, is cast the wedged or truncated pyramidal projection *h*, against the face of which the outer end of the screw-rod D bears. This rod is situated in a bearing in the frame A, upon a slight angle deviating from a horizontal line, and is rotated by means of the hand-wheel *k*. When this screw-rod is tightened, with its outer end caused to bear against the face of the projection *h*, the plate C and its connected hopper are moved slightly in a lateral direction apart from the adjacent edge of the frame, drawing the head of the set-screw D tightly within its

connected slot, and the pair of opposing lugs  $l$   $l'$  with their contiguous faces tightly against each other, securely locking the hopper upon the frame, the pressure of the end of said screw-rod upon the projection  $h$  preventing the hopper from being out of its normal position.

E is the operating-lever, having its fulcrum in the link  $m$ , connected thereto by means of the bolt  $n$ , the link being attached to an arm or projection,  $t$ , of the frame A by the bolt  $n'$ . To this lever is connected the rod F, by means of the bolt  $n''$ . Upon and at right angles thereto, at the lower end, is situated the plunger-block G, that is moved vertically within the hopper during the reciprocating movements of the lever. Projected horizontally from the front surface of the plunger-rod bearing H is cast the stud J, having the vertical set-screw K tapped within a bore. The lower edge of the lever E rests against the face of the head of this screw when brought down to its lowest position, the screw being adjusted at will to regulate the depth that the face of the plunger-block G, connected to the lever by the rod F, is permitted to descend within the hopper.

Situated near the base of the frame A, and extended horizontally from the front edge, is the rest or support L, that serves as a secure base for holding the print-block during the pressing operation. The object of this rest is to provide a rigid support for the block without liability of warping or splitting.

Secured to the exterior surface of the wall  $a^2$  of the hopper is the latch-plate N, pivoted upon the pin  $p$ . This plate is provided with the slot  $r$ , open at its lower end, and is concentric upon its outer curved edge,  $x'$ , nearly the entire length, except between the points 3 and 4, which are slightly eccentric, to the point 3. The portion of the plate on its lower edge contiguous to the curve  $x$ , lying between the points 1 2, is beveled or reduced in thickness to the point 5, forming a wedge.

When it is desired to close the hopper to press a mold of butter, a partial downward rotating movement is given to the latch-plate, causing the eccentric portion of the curve  $x'$  to come into contact with the upper end of the corresponding curve,  $y'$ , on the outer surface of the catch P, causing a drawing movement to be exerted upon the wall  $a^3$ ,

while the wedge-shaped surface of the plate coming into contact with the inner face,  $y''$ , of said catch, forces the wall  $a^2$  slightly inward, until by the downward movement of the plate the points 2 and 4 are brought into contact with the catch, causing a united joint of the walls  $a^2 a^3$ , when a continued downward movement of the plate bringing the concentric portion 4 to 6 and the surface 2 to 7 of the plate rigidly into connection with the respective faces  $y' y''$  of the catch, securely binds both parts together.

The object in forming the connection of the concentric curve  $x'$  of the slot with the edge  $y'$  and the parallel surfaces of the curve  $x$  between the points 2 and 7 with the face  $y''$  is to give sufficient bearing and retaining surfaces of the parts so as to overcome any tendency of the latch to fly open when pressure is exerted upon the walls of the hopper by the plunger in imprinting upon the surface of a mold of butter.

It is necessary to provide a secure fastening in order to overcome the tendency that the pressure exerted by the plunger-block in its descent has to cause an ordinary latch to fly open and the walls of the hopper to separate.

An upward or reverse movement of the latch-plate disconnects it from the stop or catch, and permits of the separation of the hinged halves of the hopper.

We claim as our invention and desire to secure by Letters Patent—

1. The combination of the hopper B, plate C, provided with slot  $e$ , projection  $h$ , and lugs  $l$ , said plate being secured to the wall  $a$  of the hopper, the frame A, provided with lugs  $l'$ , adjustable screw  $g$ , and screw-rod D, substantially as herein shown and described.

2. In combination with frame A, having laterally-projecting rest or support L, for the print-block, the sectional hopper B, means for securing said hopper to the frame, the latch N and catch P, for holding the parts of the hopper together when closed, the rod F, plunger-block G, and operating-lever E, substantially as herein shown and described.

PAUL J. REID.  
J. H. DUNBAR.

Witnesses:

A. J. HERR,  
ALLAN A. HERR.