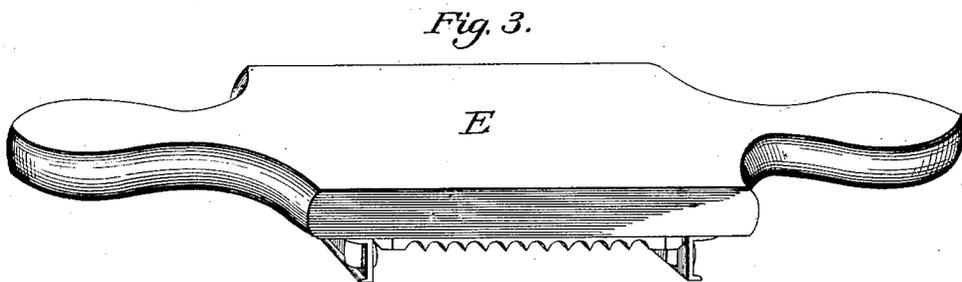
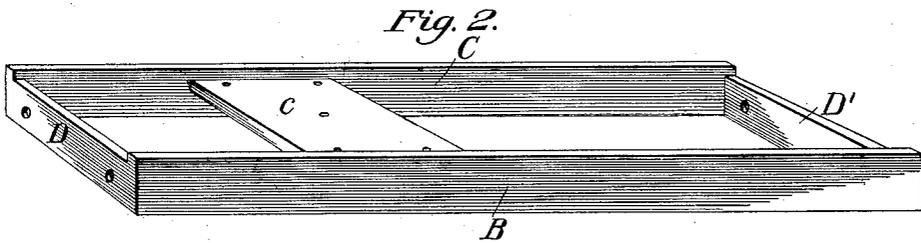
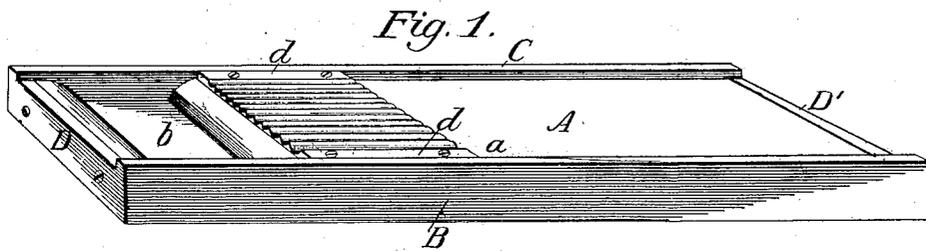


A. H. WIRZ.  
PILL MACHINE.

No. 69,379.

Patented Oct. 1, 1867.



Witnesses.  
John L. West  
George H. Stetter.

Inventor.  
A. H. Wirz

# United States Patent Office.

AUGUST H. WIRZ, OF PHILADELPHIA, PENNSYLVANIA.

Letters Patent No. 69,379, dated October 1, 1867.

## PILL MACHINE.

The Schedule referred to in these Letters Patent and making part of the same.

### TO ALL WHOM IT MAY CONCERN :

Be it known that I, AUGUST H. WIRZ, of Philadelphia, in the county of Philadelphia, and State of Pennsylvania, have invented a new and useful Improvement in Machines for Making Pills; and I do hereby declare that the following is a full, clear, and exact description thereof, and of its mode or manner of operation, reference being had to the accompanying drawings and to the letters of reference marked thereon, and making a part of this specification.

Pill machines designed for making pills by hand, as usually constructed, have consisted of a central piece or block of wood, upon which the composition is rolled before being made or converted into pills, to the sides and ends of which are fastened by screws or nails pieces of brass or other metal, which project a little above the wood, to regulate the thickness to which the material is to be rolled, and also to furnish ways or bearings for the former or movable part of the machine, which is operated by the hands. The wooden block or platform is, however, very likely to shrink or warp more or less, and when the metallic side pieces are fastened or secured directly to the wood, these become, by such shrinking of the wood, sprung or bent, and thus deflected from a straight line, and thus render the machine nearly or wholly useless, as the former or movable part cannot be moved backwards and forwards between these metallic side pieces, which form its guides and bearings. Pill machines so constructed are capable of being used but a comparatively short time, when they have to be laid aside and new ones supplied, and the extent of this imperfection is so great that numbers of such discarded machines can be found in almost every drug store.

My invention has reference to such a form of construction that the defects referred to are wholly avoided, and the machine thus rendered more durable, and at the same time the machine can be much more cheaply constructed.

Figure 1 represents the lower or principal part of a pill machine in a condition for use.

Figure 2 represents the metallic frame that surrounds the central wooden part and supports the grooved plate for forming the pills.

Figure 3 represents the upper or movable part operated by the hands.

The part A is formed of wood, as heretofore, and is depressed at *a*, where the material is to be rolled out, as much below the upper edges of the enclosing metallic sides B C as may be desired, the front end *b* being cut out deeper, so as to form a sort of cup to receive the pills as they are made. Instead, however, of forming the metal sides B C and ends D D' of separate pieces, and fastening them directly to the wooden part A, I construct the metallic frame, in which is fixed the wood block A, solid, or of a single piece, the sides B C and ends D D' being attached to and supporting each other. This frame may be of any kind of metal, and the sides and ends may be connected together as deemed fit, but I prefer to make it of cast iron, the whole cast at a single operation, both on account of facility as well as cheapness of construction. Fig. 2 shows the frame as it leaves the moulds, the plate *c* furnishing a support for the grooved plate *d*, and also strengthening the frame. Instead, also, of securing the frame and the enclosed wooden block A together by screws or nails, passing through the sides pieces B and C, or through the side and end pieces, as heretofore, I support or secure the block A by screws or nails passing only through the ends D D' of the frame, and entering the wood in a direction parallel with its grain, and in which there is but little if any shrinkage. A single screw may also be passed through the plate *c* into the wood. The sides B and C not being at all fastened to the block A, any possible shrinking of the latter will not in any manner or to any extent change the position of, or bend or deflect from a straight line, the sides B C, or either of them, but these will remain parallel to each other however much the block A may shrink away from them, and will thus furnish continually a uniform or unchanged bearing surface or ways for the action of the movable part E. There being but little pressure directly on the wood block A, it will be held and secured in the metallic frame sufficiently firmly by the screws or nails that pass into it through the metal ends D D', and such screws or nails also enter the wood in a direction in which there is but very little if any shrinkage to affect them. The metallic frame, being made or cast in a single piece, can be made heavier, to secure all desired stability, and at the same time cheaper than if made of several lighter pieces, which severally require to be fitted and fastened. The movable part or former E is constructed substantially as heretofore, having a grooved plate corresponding to the similar plate *d*, and fitting within the metal side pieces B C.

What I claim as my invention, and desire to secure by Letters Patent, is—

So constructing the metallic or enclosing frame of pill machines that the central wooden part thereof shall be attached or fixed to only the end pieces of such frame, so that the sides thereof, which form the bearings or ways of the movable part of the machine, will be disconnected from such central part, and will not be deflected or changed in parallelism by the shrinking of the central wooden part, for the purposes set forth.

A. H. WIRZ.

Witnesses:

JOHN G. WOERTZ,  
GEORGE HOFSTETTER.