

D. G. BATCHELDER.
Machines for Making Sheet Lead.

No. 136,124.

Patented Feb. 25, 1873.

Fig. 2.

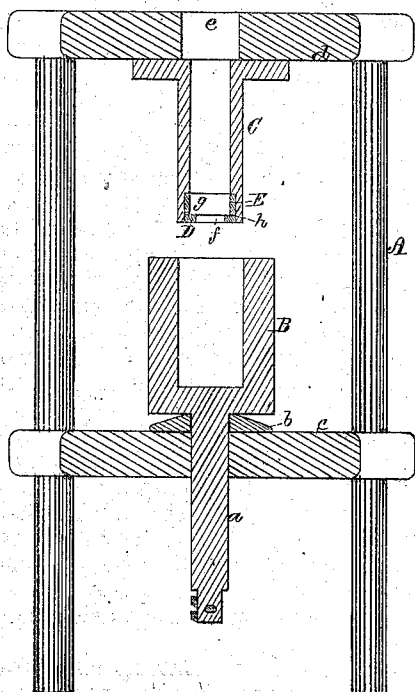


Fig. 3.

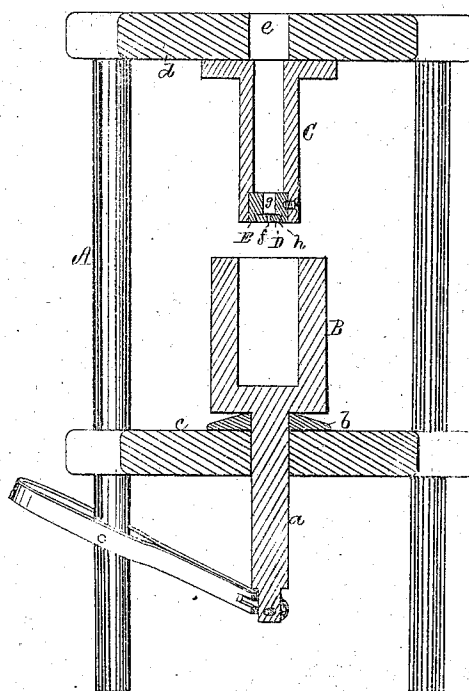


Fig. 1.

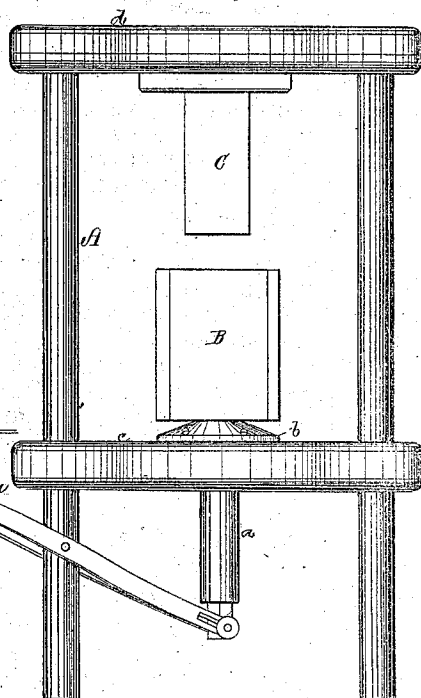


Fig. 4.



Witnesses

S. W. Piper
L. N. Möller.

David G. Batchelder

by his attorney
R. H. Ledy.

UNITED STATES PATENT OFFICE.

DAVID G. BATCHELDER, OF SALEM, MASSACHUSETTS.

IMPROVEMENT IN MACHINES FOR MAKING SHEET-LEAD.

Specification forming part of Letters Patent No. 136,124, dated February 25, 1873.

To all whom it may concern:

Be it known that I, DAVID G. BATCHELDER, of Salem, of the county of Essex and State of Massachusetts, have invented a new and useful Machine for Making Sheet or Band Lead; and do hereby declare the same to be fully described in the following specification and represented in the accompanying drawing, of which—

Figure 1 is a side elevation, and Figs. 2 and 3 vertical sections of it, the planes of section being at right angles to each other and through the axis of the stationary plunger.

The machine as represented has a stationary tubular plunger, a movable metal-receiver, a separate sheet or band forming slot-plate, and a chambered carrier for the latter, all constructed and arranged within and applied to a supporting-frame, as shown.

In using the said machine the metal-receiver, when at its lowest position, and the plunger is out of it, is to be charged with lead in a melted state, which is to be suffered to cool and set, after which the receiver is to be forced upward upon the plunger, carrying the carrier and its band or sheet former or plate, the plunger fitting closely to the chamber of the receiver, or having with it a like area in horizontal section, as shown. Hydraulic or other suitable power being used to elevate the receiver, the charge of it will be expelled through the parallel-sided slit, and in the form of a sheet, band, or ribbon of lead, which will pass up through the plunger and be discharged therefrom.

In the drawing, A denotes the frame of the machine; B, the chambered receiver; C, the plunger; D, the slitted band or sheet former or plate; and E, the movable chambered carrier of the latter. The receiver B is a strong block of cast-iron mounted on a spindle, *a*, which is extended down through a bearing and guide-plate, *b*, fixed to the base *c* of the frame, and arranged as shown. The receiver B is open at top to receive the plunger C, which is a tube corresponding in horizontal section with that of the chamber of the receiver B, and fastened to and extended down from the cap *d* of the frame A. Such cap is provided with an opening, *e*, leading through it into the bore of the plunger. In the lower part of the bore of the plunger is the slotted plate or band

or sheet former D, through which is a long sheet or band forming slit, *f*, a top view of such part D being shown in Fig. 4. This slit, in horizontal section, corresponds in area and form with a transverse section of the band or plate of lead to be produced. The carrier E, which is a block of metal having a long slit or chamber, *g*, extending through it vertically, and a groove, *h*, going across its bottom, (such groove being to receive and support the slotted plate D,) is inserted in the lower part of the plunger and fastened or held in place therein by one or more screws, or by other suitable means. The groove and the plate D are dovetailed in transverse section, the plate and carrier being of the same length, in order that when the two are within the plunger the latter will keep the plate from moving endwise. The separate carrier admits of the plate being removed and another having a slot of a different width substituted, as occasion may require.

I am aware that, for making lead tubes, a cylinder and plunger, provided with a round or cylindrical educt, and a core to such educt, have long been known and used. I therefore make no claim thereto, as in my machine I have no such core, and do not, by such machine, make a tube, but simply a sheet or band.

I claim as my invention as follows, viz:

1. The arrangement and combination of the sheet or band forming slit or slotted plate D, the movable metal receiver B, and the stationary tubular plunger C.

2. The combination of the movable chambered and grooved carrier E (for receiving and supporting the sheet or band forming slot-plate D) with the movable metal-receiver B and the stationary tubular plunger C.

3. The chambered and grooved carrier E, the separate sheet or band forming slot-plate D, the movable metal-receiver B, and the stationary tubular plunger C, all constructed and arranged together and applied to a frame, A, in manner and to operate substantially as and for the purpose as hereinbefore explained.

DAVID G. BATCHELDER.

Witnesses:

R. H. EDDY,
J. R. SNOW.