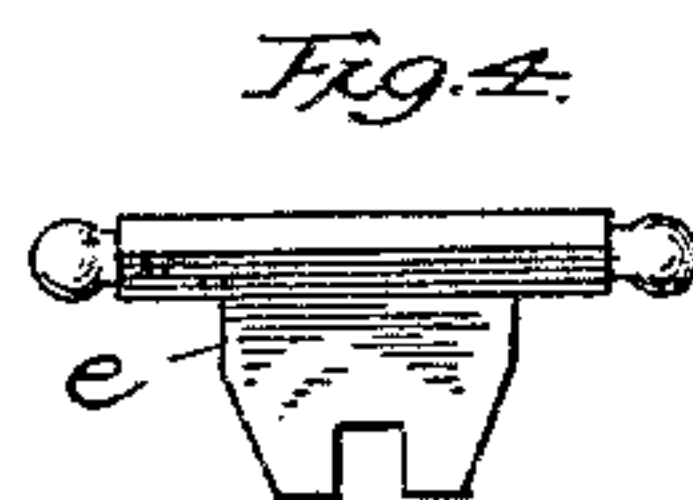
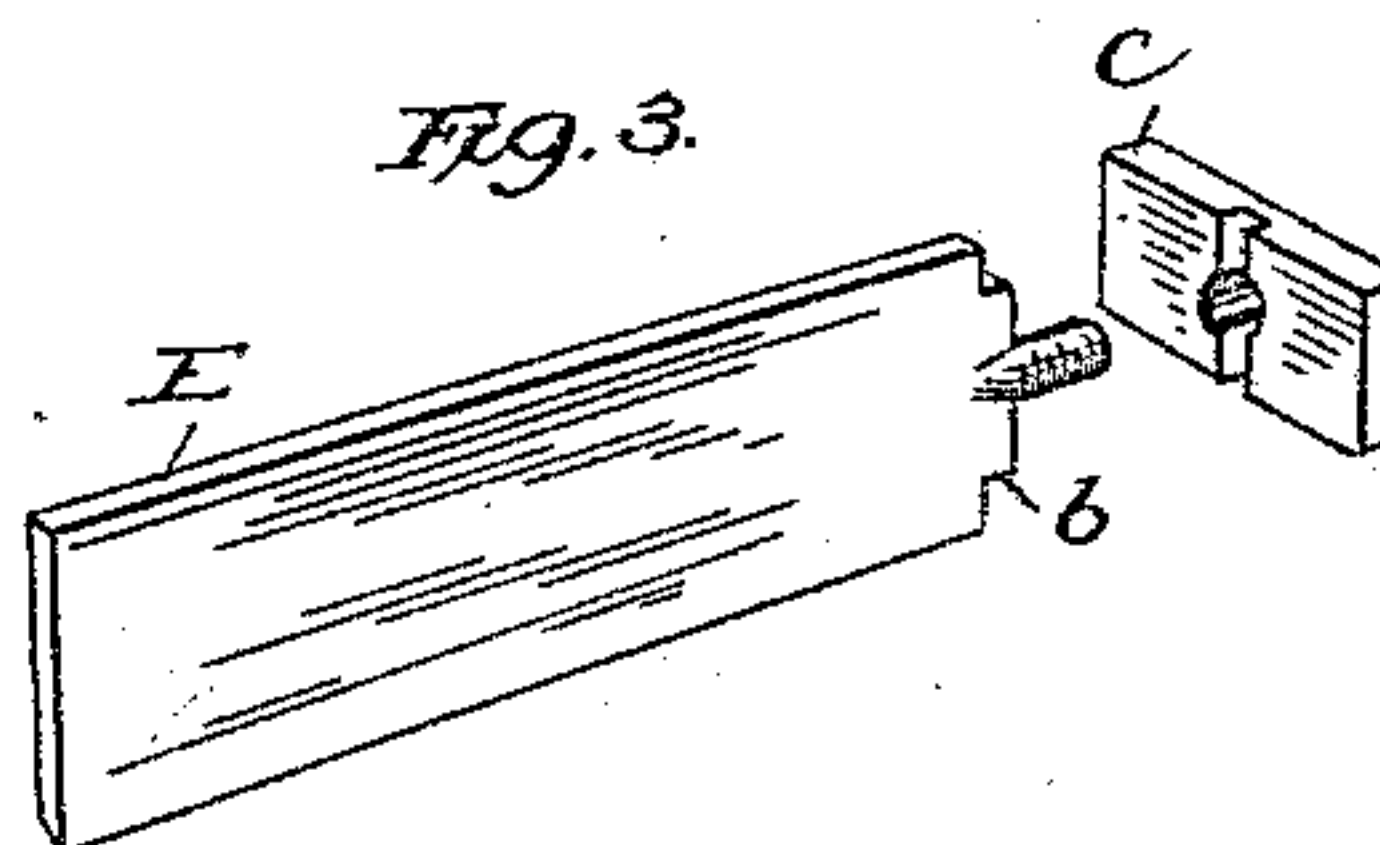
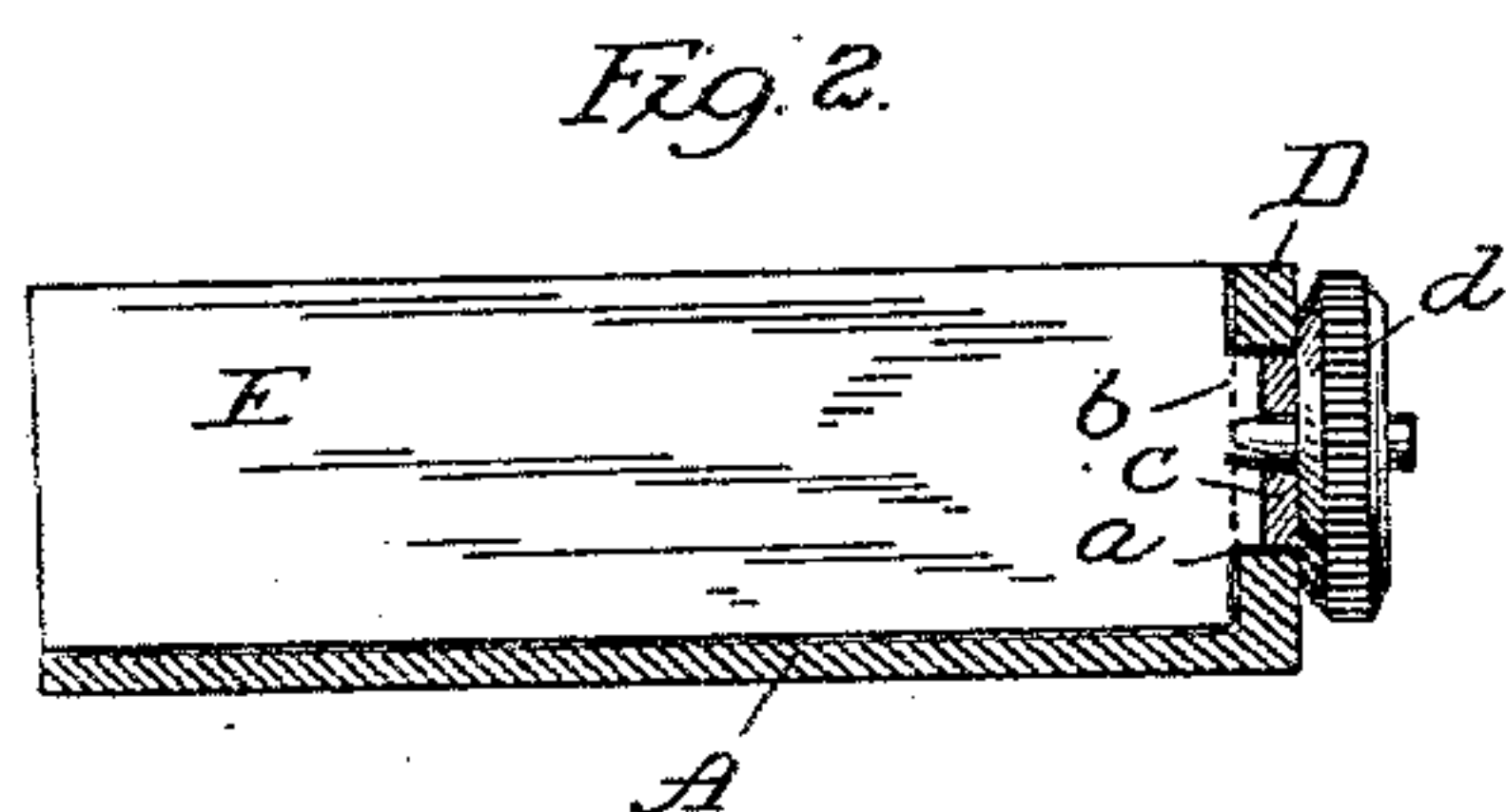
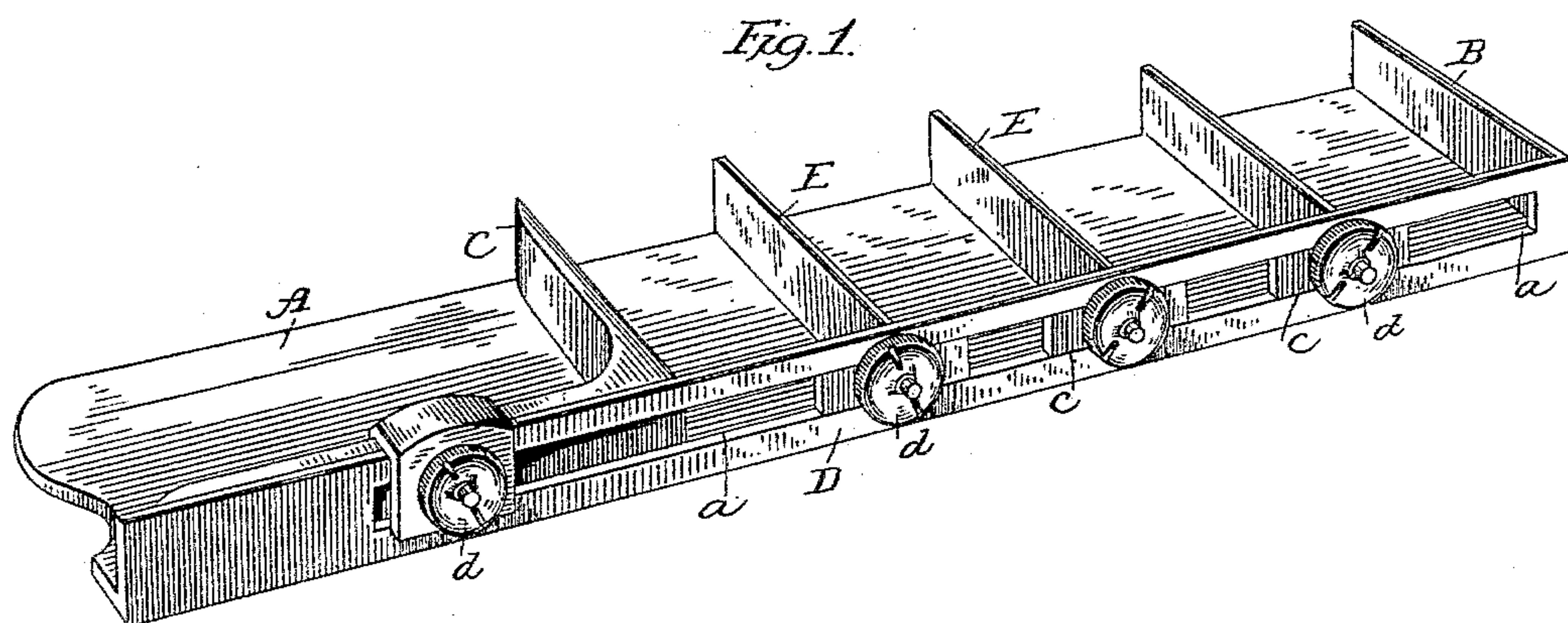


(No Model.)

C. M. GROW.
COMPOSING STICK.

No. 318,893.

Patented May 26, 1885.



Attest:
Walter D. Mearns
F. L. Middleton

Inventor
Charles M. Grow
by *Joyce & Spear*
Attys.

UNITED STATES PATENT OFFICE.

CHARLES M. GROW, OF FREDERICK, MARYLAND.

COMPOSING-STICK.

SPECIFICATION forming part of Letters Patent No. 318,893, dated May 26, 1885.

Application filed April 29, 1884. (No model.)

To all whom it may concern:

Be it known that I, CHARLES M. GROW, of Frederick, in the county of Frederick and State of Maryland, have invented a new and
5 useful Improvement in Composing-Sticks; and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention relates to an improvement in composing-sticks used by printers.

10 My invention consists in the details of construction hereinafter fully described and specifically claimed.

In the drawings, Figure 1 represents a perspective view of the stick. Fig. 2 is a trans-
15 verse section through the same, showing one of the gages in side elevation. Fig. 3 is a detail view of one of the gages with its plate. Fig. 4 is a view of the locking-key.

For the most part the stick is of ordinary
20 construction, especially the base-plate A, side wall B, and sliding knee C. The rear wall, D, is also similar to the ordinary walls, with the exception that in my improvement a slot, *a*, runs almost its entire length. The knee C
25 may be held to the wall D by any suitable set-screw, clamp, or similar device.

In the slotted part of the wall D, I secure the gages E E, which serve to separate and allow the several columns to be set up or begun
30 at the same time. These gages are composed of metal, as is the rest of the device, and are provided with reduced necks at their rear ends, (marked *b*,) which fit into and pass through openings in plates *c*, said plates being fitted to
35 the slotted back plate or wall, D, and adapted to slide therein. The neck of the gage projecting through the hole in the plate *c* is screw-threaded, and upon this screw-threaded end, which passes entirely through the plate *c*,
40 flush with the rear wall, D, is screwed a thumb-nut or clamping-screw, *d*.

The inner surface of the plate *c* may be provided with a groove running vertically of the plate, and in this the edge of the gage is adapted to rest, thus preventing it from turning. 45

The thumb-nut may be slotted or grooved on its surface, and a key (represented at *e*) be used to tighten it.

The gages, it will be obvious, are easily removed or inserted, and do not interfere with
50 the working of the device with the single knee, as ordinarily used. Any number may be used, as will be found convenient or desirable.

I do not limit myself to the details of construction as described, as they may be changed
55 and varied greatly without departing from the spirit of my invention.

I am aware that it is not new to form a composing-stick with a slotted rear wall and provide a hollow knee adjustable within said slot
60 toward or from the fixed side wall, such construction being old and well known in Letters Patent granted to F. W. Murray, No. 88,800, and I do not wish to be understood as claiming such an arrangement, broadly. 65

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

The composing-stick consisting of plate A, fixed side wall, the slotted rear wall, the plates
70 *c*, adapted to said slot, the gages adapted to said plates, and the tightening devices therefor, all operating in connection with each other as described.

In testimony whereof I have signed my name to this specification in the presence of two sub-
75 scribing witnesses.

CHAS. M. GROW.

Witnesses:

MILTON G. URNER,
W. IRVING PARSONS.