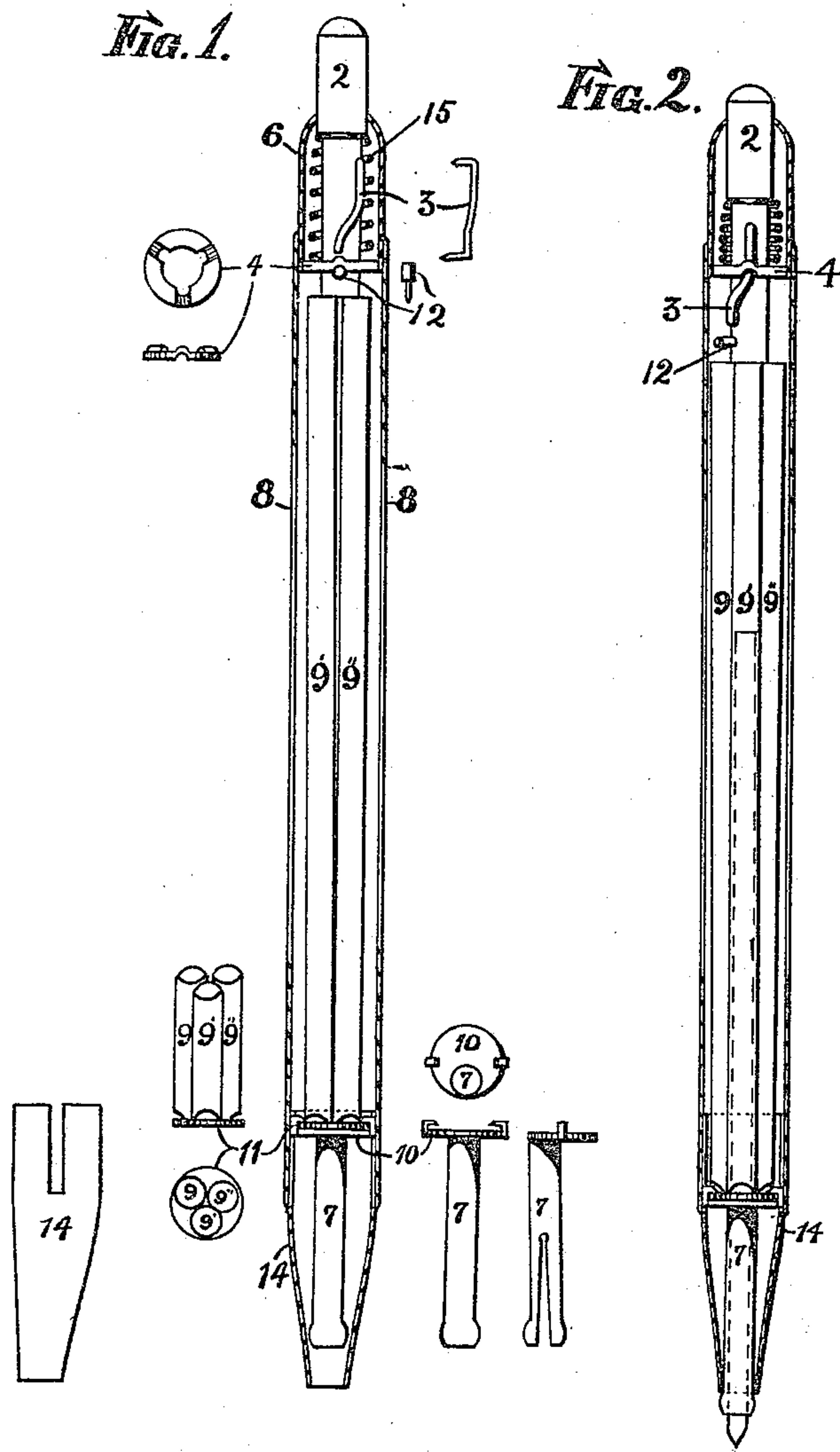


(No Model.)

D. A. KEIZER.
MAGAZINE PENCIL.

No. 442,754.

Patented Dec. 16. 1890.



Witnesses

J. J. Boyd
W. W. Braden

INVENTOR.

D. A. Keizer.

UNITED STATES PATENT OFFICE.

DAVID ANTHONY KEIZER, OF WINNIPEG, CANADA.

MAGAZINE-PENCIL.

SPECIFICATION forming part of Letters Patent No. 442,754, dated December 16, 1890.

Application filed June 9, 1890. Serial No. 354,735. (No model.)

To all whom it may concern:

Be it known that I, DAVID ANTHONY KEIZER, a citizen of Canada, residing at Winnipeg, Province of Manitoba, Canada, have invented new and useful Improvements in Magazine-Pencils, of which the following is a specification.

My invention relates to improvements in Patent No. 340,842, for magazine-pencils, in which I am joint inventor; and the objects of my improvements are, first, to provide a more simple, more durable, more readily-made, more compact, and better actuator by means of a recessed metal ring having converging hollows on its lower side, a curved-wire dog, pin fixed in central shaft, and a non-interfering spring which encircles shaft and dog; second, by spreading the tops of tubes composing the magazine and converging as much as possible at the grip-connection the point of the grip is brought more to the center line of the pencil, and, third, by means of the turned-down points of the lugs which embrace the magazine-disk an easier and more convenient connection is made. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a vertical section of the entire pencil. Fig. 2 is also a sectional view showing the lead gripped and one of the magazine-tubes firmly held in line by means of curved dog and recessed ring composing part of the actuator.

Similar letters refer to similar parts throughout the several views.

The curved-wire dog 3 whose ends enter holes in tube-shaft 2 at sixty degrees, in a three-tubed magazine, together with recessed and hollowed metal ring 4 fixed in metal tube 6, metal pin 12 fixed in metal shaft 2 below lower end of curved-wire dog 3, and spring 15 compose the actuator simplified.

In Figs. 1 and 2, 9' 9'' and 9 9' 9'' show the top of the magazine spread outward, but within easy working limits of the inside diameter of metal tube 8.

Figs. 1 and 2 show the connection of disk

10 with disk 11; also, the manner of cutting away part of the magazine-tubes to allow the lug points of disk 10 to freely move on disk 11. Disk 10 is permanently fastened to grip 7. The lugs on disk 10 fit into and slide up and down in vertical slots 16 in tubes 14 when the finger presses and releases top 2. The object of the vertical slots and lugs is to maintain the longitudinal movements of grip 7.

In the drawings the side view of grip 7 shows the inclination of the grip toward the center of the pencil, which when on line with one of the magazine-tubes forms a continuous straight tube, thus permitting the exit and ingress of a lead. When pin 12 rests in one of the hollows in ring 4, shaft 2 may be pressed downward as often as the operator likes. Ring 4 and pin 12 will always return to the same position. By turning shaft 2 the operator will feel ring 4 come in contact with pin 12 and hear the click. Then a new lead may be pressed out.

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

1. The disk 10, to which grip 7 is permanently fastened, having projecting lugs with turned-down points, which engage with magazine-disk 11 and vertical slots 16 in tube 14.

2. The combination, in magazine-pencils, of a recessed ring 4, permanently fixed in tube 6, with shaft 2, having a curved-wire dog 3 fastened in it, communicating with the said recesses in ring 4, spring 15, which encompasses dog 3 and shaft 2, and supporting-pin 12, fixed in shaft 2.

3. In a magazine-pencil, the magazine, whose tubes 9 9' 9'' are spread diametrically at the top and brought together at the base at disk 11, and inclined grip 7, communicating with the said magazine, all substantially as set forth.

Winnipeg, June 3, 1890.

DAVID ANTHONY KEIZER.

Witnesses:

W. J. BOYD,

GEO. A. PRIDHAM.