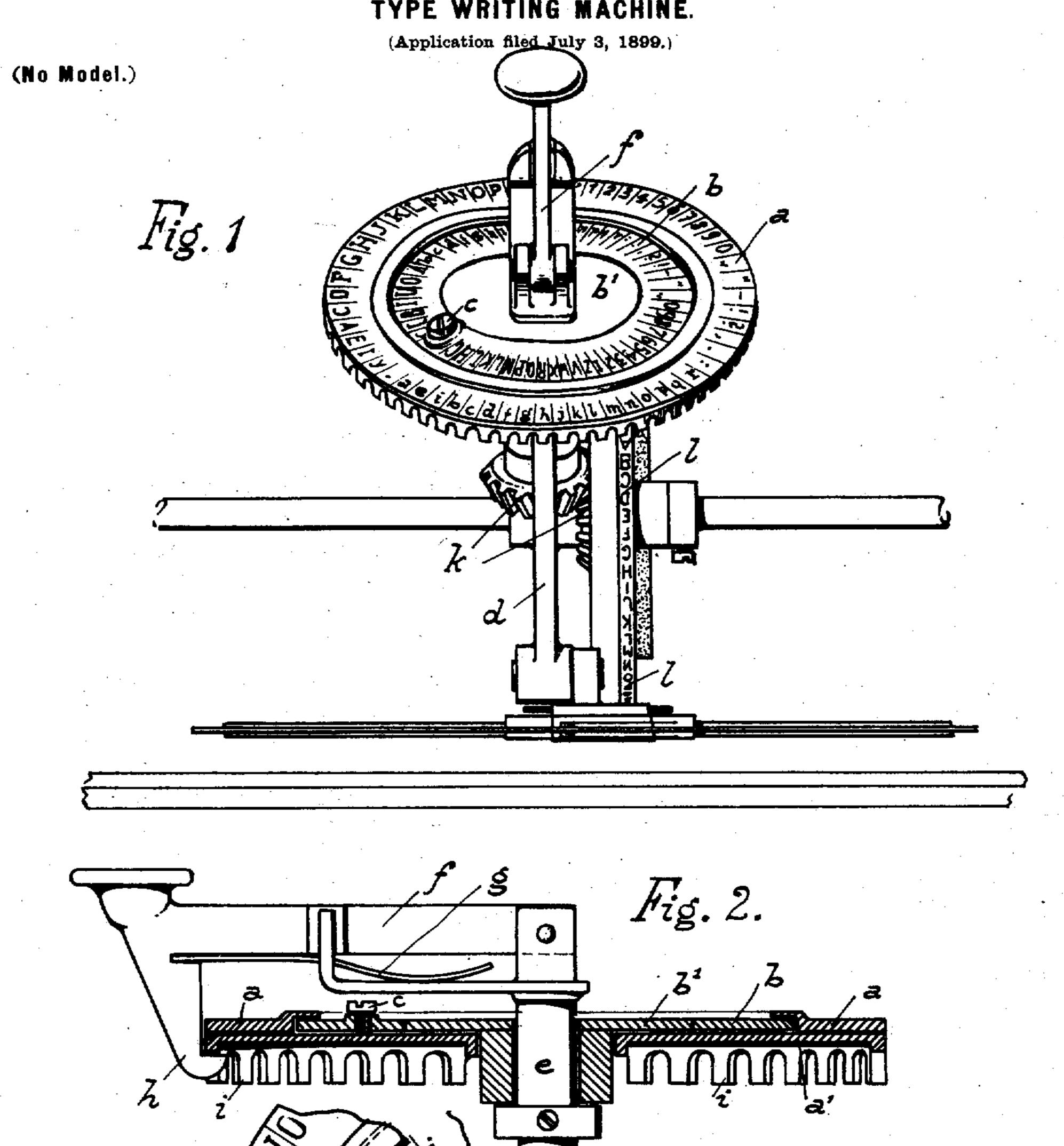
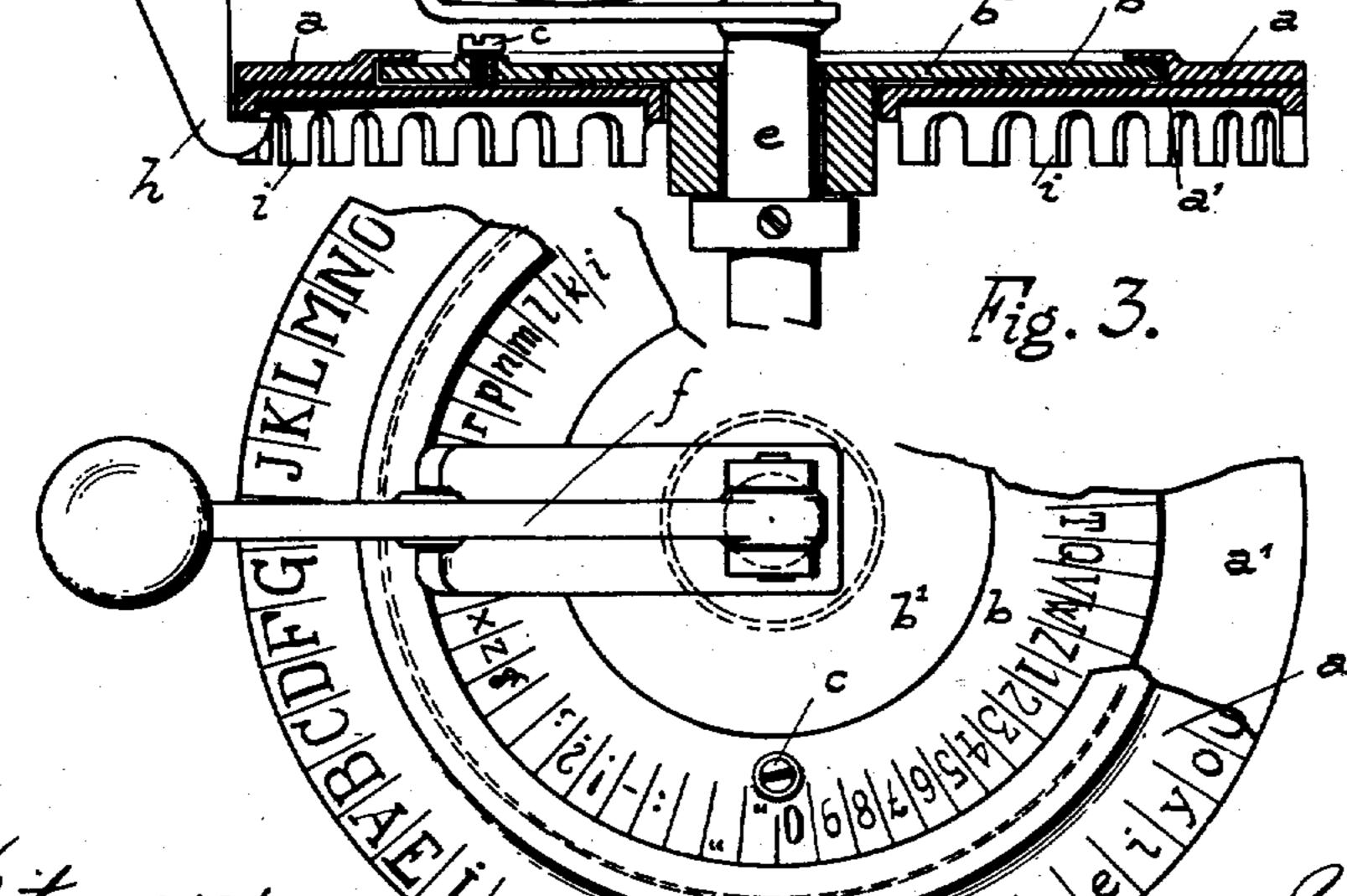
R. BEGER.







United States Patent Office.

RICHARD BEGER, OF DEUBEN, GERMANY.

TYPE-WRITING MACHINE.

SPECIFICATION forming part of Letters Patent No. 695,999, dated March 25, 1902.

Application filed July 3, 1899. Serial No. 722,667. (No model.)

To all whom it may concern:

Be it known that I, RICHARD BEGER, a subject of the King of Saxony, residing at Deuben, near Dresden, Germany, have invented 5 certain new and useful Improvements in or Relating to Type-Writing Machines, (for which I have made application for Letters Patentin France, filed December 24, 1898, and in Austria, filed December 31, 1898,) of which to the following is a specification.

The present invention relates to type-writing machines which can be used for code or

secret writing.

The invention consists in the arrangement 15 horizontally of two concentric rings, one within the other, each being provided on its surface with letters and signs, which rings can be relatively displaced one with regard to the other according to a prearranged code or 20 system. Thus words and letters typed according to the outer ring appear on paper printed according to the inner ring, the consequence being that the printed words will have no seeming connection with one another until 25 rearranged in the manner hereinafter to be described. The receiver then arranges the index-rings of his own machine relatively to each other in conformity with the code or system decided on—i. e., in the same manner 30 as the sender had done—copying the text received according to the letters and signs of the inner ring. It will be found that by this method the key of the machine will indicate the proper signs and letters of the outer ring, 35 thus reproducing the text received in a manner so as to represent the original text and original connected phrases.

If, for instance, the word "Arno" had been decided on as the key, the inner ring is set 40 in such a manner that its letter "A" corresponds or is in line with the small "o" of the outer ring. Inasmuch as the word "Arno" contains four letters, the fact of it containing four letters may be used as an indication 45 that the key has to be changed every four lines, so as to render the deciphering more difficult to strangers. By relatively displacing the rings gradually—for instance, "r" under "o," then again "n" under "o," then 50 "o" under "A," "n" under "A," then "r" under "A," and finally "r" under "n," and |

I "n" under "r"—it is possible to change the key in a letter containing forty lines not less than eight times, a fact which renders it almost impossible for any stranger to decipher 55 the real meaning even after long-continued trials.

Thearrangement characterizing the present invention, and which can be employed in machines of various constructions, is represent- 60 ed in—

Figure 1 by a front view, in Fig. 2 by a sectional view, and in Fig. 3 by a broken plan view.

The two horizontal concentric rings a and 65 b are connected, respectively, to disks a'b', the ring b being arranged so as to be rotatable on the larger disk a', on which, however, it can be secured by means of a clamping-screw c. The outer edge of the inner ring b is over- 70 lapped by the edge of the outer ring a, fastened to or forming part of the disk a'. The latter is rigidly connected with the frame dof the type-writing machine, while the shaft e, carrying the key f, passes loosely through 75 the two disks a'b'. The key f, which is pressed upward by the spring g, engages with its hook h in one of the teeth i, arranged on the under side or flange of the disk a', and is thereby steadily held in position. 80 The type-wheel l is arranged vertically and is actuated by the shaft e by means of bevelgearing in such a manner that by turning the key f to a desired position or letter on the outer ring a and locking the hook between 85 the corresponding teeth of the disk in this position the corresponding letter on the typewheel l will be brought to its lowest position, when it is impressed on the paper placed underneath it. This arrangement for the pro- 90 duction of code-writing can also be applied to type-writing machines of other constructions, my invention being characterized by two concentric letter-rings movable relatively to each other.

I claim—

1. The combination with two horizontallyarranged concentric sign-rings, one of which is relatively movable as regards the other, a type-wheel arranged vertically below the 100 rings, an operating-shaft extending centrally through the inner ring and rotatable independently thereof, and gearing between the

shaft and the type-wheel.

2. The combination with two horizontally-arranged concentric sign-rings a, b, one of which is relatively movable as regards the other, a type-wheel arranged vertically below the rings, disks a' b' carrying the rings, a shaft passing loosely through the disks, centrally thereof, a key carried by the shaft, teeth on the under side of the disk a' adapted

to be engaged by the key, and gearing between the type-wheel and the shaft.

In testimony whereof I have hereto set my hand in the presence of the two subscribing witnesses.

RICHARD BEGER.

Witnesses:

F. Lehners, Hernando de Soto.