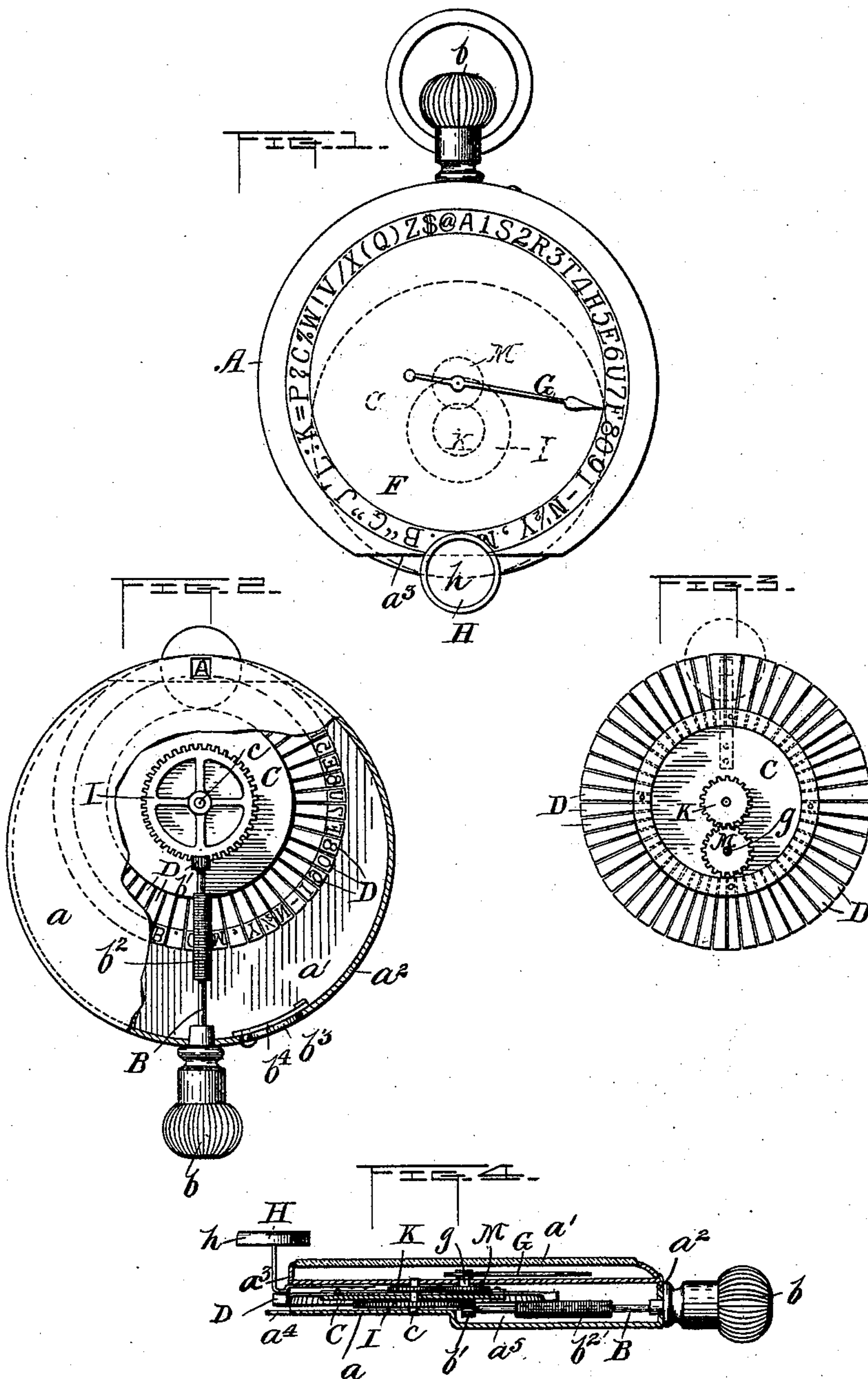


(No Model.)

S. FUJIKI.
TYPE WRITING MACHINE.

No. 464,355.

Patented Dec. 1, 1891.



WITNESSES

W. C. Cavanaugh
J. M. Copenhaver

INVENTOR

Suyerto Fujiki
by his Attorney
Edward J. Fenwick

UNITED STATES PATENT OFFICE.

SUYEOTO FUJIKI, OF TOKIO, JAPAN.

TYPE-WRITING MACHINE.

SPECIFICATION forming part of Letters Patent No. 464,355, dated December 1, 1891.

Application filed April 29, 1891. Serial No. 390,884. (No model.)

To all whom it may concern:

Be it known that I, SUYEOTO FUJIKI, a citizen of Japan, residing at Tokio, in the Province of Musashi, Japan, have invented certain new and useful Improvements in Type-Writing Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to pocket type-writers; and it consists of certain novel constructions, combinations, and arrangements of parts, as will be hereinafter described and specifically claimed, whereby a simple, cheap, and useful type-writing machine is produced which can be conveniently carried in the pocket when not in use, and when in use carried in and operated by the hand with great ease and rapidity.

In the accompanying drawings, Figure 1 is a top view of the type-writer, showing in full lines the operating-shaft, the index-carrying disk, the indicator and the finger depression-key, and in dotted lines the revolving type-disk and the meshing operating-wheels. Fig. 2 is an inverted bottom view of the type-writer, a portion of the bottom case being broken away to show more clearly the operating-shaft with its pinion meshing into a cog-wheel on the type-carrying disk. Fig. 3 is a top view of the type-carrying disk and the operating gear-wheels, and Fig. 4 is a vertical section of the type-writing machine through the operating-shaft.

A represents an outer casing; B, an actuating-shaft; C, type-carrying disk; D, flexible type; F, indexed disk; G, index-pointer, and H depression finger-key. The body portion of the outer casing A is nearly circular in form and may have top and bottom portions, which are approximately flat. The top portion has a chord cut from its outer front end, as indicated at a^3 . In the forward end of the bottom of the case, near its outer edge, a passage a^4 is provided, which forms a guide for the type D when they are depressed by the depression-key H, and the bottom portion is also formed with a depression, as at a^5 , Fig. 4, which allows the paper to be brought nearer to the type. The top portion or lid a'

of the outer case may be hinged or otherwise suitably secured and have its central portion fitted with a glass, as in the case of an ordinary open-face watch.

Through the periphery of the outer casing A an actuating-shaft B is passed, which in construction is very similar to the ordinary stem of a watch, except that intermediate of its milled head b and its meshing pinion b' it is provided with an inking pad or roller b^2 , which turns with the actuating-shaft when said shaft is revolved, as clearly shown in Figs. 2 and 4. The outer case is also provided in its periphery near where the actuating-shaft is inserted with a passage b^3 for supplying ink to the inking-pad. This ink-passage may be covered with a spring or slide-valve b^4 , as shown. The pinion b' meshes with the tooth-wheel I, and thus transfers its motion to the same. This wheel is secured to the type-carrying disk by a pin c , which latter is secured at its lower end in the bottom of the outer case and is extended upward through the type-carrying disk C and through a toothed wheel K on the upper surface of the type-carrying disk, and finally finds its bearings in the indice-disk F. By turning the actuating-shaft B the toothed wheel I on the lower surface of the type-carrying disk, the toothed wheel K on the upper surface of the same, and the type-carrying disk C revolve together, and the wheel K by meshing with the toothed wheel M, the latter being secured to the index-pointer G by a revolving pin g , transfers its motion to the said pointer. The revolving type-carrying disk is made of less diameter than the outer case, and is provided on its periphery with separated flexible type which are secured at their rear ends to the disk, while their forward ends extend outward beyond the same, so that when the type-disk is revolved the type are inked by coming in contact with the inking-pad on the actuating-shaft, and by passing directly over the type-guiding passage a^4 they will, when the depression-key H is pressed down, be forced vertically through the said passage onto the paper to be printed.

I contemplate setting the type with a slight upward bend or angle, so that when the depression-key is brought down upon the back

of the type they will strike squarely upon the paper and consequently make a full clear impression.

The index-disk F is made stationary and
 5 may be secured to the outer case in any suitable manner, either at the sides or at the bottom of the outer case. This disk is provided with letters, figures, punctuation-marks, and other characters used in writing or printing,
 10 such characters corresponding to the type on the type-carrying disk, but arranged in reverse order to the type, so that when the type-carrying disk is turned toward the right and the index-pointer consequently toward the
 15 left the index-pointer G will indicate the location of the type on the disk. The finger depression-key H is preferably secured at its rear end to the under side of the indice-disk and projects out beyond the indice-disk directly over the type, and is then bent upward
 20 vertically a suitable distance and is provided at its upper end with a head or button *h* to form a striking-surface for the finger in depressing the key. The depression-key, being
 25 secured at its extreme rear end, has a spring action, so that when a type is struck by the key and the finger withdrawn the spring-depression-key will return to its normal position, as will also the flexible independent type.
 30 The operation of my type-writer is as follows: The type-writer is placed on a desk or table with the milled head of the actuating-shafting pointing toward the operator, the milled head being held and operated by the
 35 right hand and used as a means of moving the machine forward on the paper to be printed. The index-pointer registering with the type on the under surface of the type-carrying disk as they pass over the type-guiding passage it
 40 is simply necessary to turn the index-pointer by means of the actuating-shaft to the indice letter desired on the stationary indice-plate, and this done the corresponding type will be directly beneath the type-guide passage and
 45 in line with the depression-key H, and by striking upon the depression-key with the finger of the left hand the letter will be printed

on the paper. For printing another letter for completing a word the type-writer would be moved forward the distance of a letter and
 50 the index-pointer turned to the desired letter and the finger depression-key depressed, as before described. For securing perfect alignment it might be advantageous to use ruled paper; but, however, this is optional. 55

What I claim as my invention is—

1. In a type-writing machine, the combination of the actuating-shaft supported in a case and carrying a pinion *b'*, type-carrying disk carrying toothed wheels I and K, connected
 60 by a pin *c*, stationary indice-disk F, carrying toothed wheel M, and an index-pointer connected to said wheel M by a pin *g*, the said pinion *b'* and wheel I meshing with each other and the wheels K M meshing with each other, 65 substantially as described.

2. In a type-writing machine, the combination of the actuating-shaft carrying an inking-pad, a toothed wheel meshing with the pinion on the actuating-shaft and carrying
 70 the type-disk, the toothed wheels K M, the index-disk, and the index-pointer, substantially as described.

3. In a type-writing machine, the combination of the type-carrying disk provided with
 75 flexible type, a depression-key, an outer case having a chord cut from its top portion at its forward end to permit the type when revolved to fall outside of this portion of the outer case, and a type-guide, substantially as described. 80

4. In a type-writing machine, the combination, with an operating-shaft provided with an inking-pad, and the outer case provided with an opening for supplying ink to the pad, substantially as described. 85

5. In a type-writing machine, a type-actuating shaft provided with an inking-pad, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

SUYEOTO FUJIKI.

Witnesses:

JOSEPH ROY,
 C. SEVERANCE.