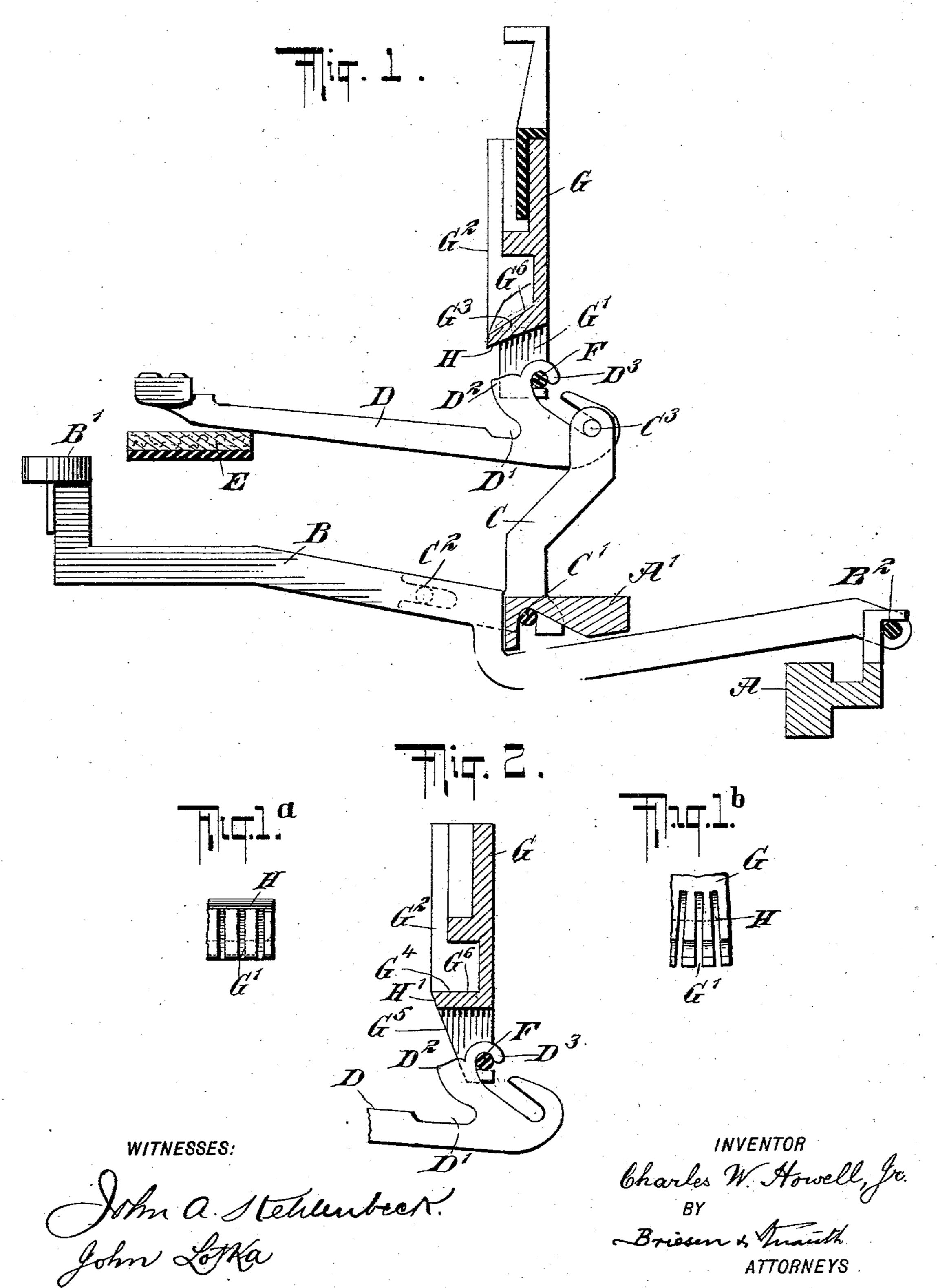
C. W. HOWELL, $J_{\mathbb{R}}.$ TYPE BAR SEGMENT FOR TYPE WRITERS.

APPLICATION FILED OCT. 5, 1903.

NO MODEL.



United States Patent Office.

CHARLES W. HOWELL, JR., OF NEWARK, NEW JERSEY, ASSIGNOR TO UNDERWOOD TYPEWRITER COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW JERSEY.

TYPE-BAR SEGMENT FOR TYPE-WRITERS.

SPECIFICATION forming part of Letters Patent No. 753,397, dated March 1, 1904.

Application filed October 5, 1903. Serial No. 175,784. (No model.)

To all whom it may concern:

Be it known that I, Charles W. Howell, Jr., a citizen of the United States, and a resident of Newark, Essex county, State of New 5 Jersey, have invented certain new and useful Improvements in Type-Bar Segments for Type-Writers, of which the following is a specification.

My invention relates to that member of a type-writer or like machine on which the type-bars are pivotally supported, and has for its object to efficiently protect the pivot portions of the type-bars from dust or other foreign matter.

The invention will now be described in detail with reference to the accompanying drawings, and the novel features will then be point-

ed out in the appended claims.

Figure 1 is a sectional elevation of a portion of a type-writing machine sufficient to
illustrate my invention. Fig. 1° is a bottom
view of a portion of the segment with the
type-bars removed. Fig. 1° is a rear elevation of a portion of the segment with the typebars removed, and Fig. 2 is a sectional detail
of another form of my invention.

A designates that portion of the frame to which the levers B, carrying the keys B', are

pivoted, as at B².

crumed the elbow-levers C, arranged to transmit motion from the key-levers B to the corresponding type-bars D. Only one set of these parts is shown in Fig. 1, it being understood that a large number of such sets are located side by side. The elbow-lever C is fulcrumed at C', has a pin-and-slot connection C² with the key-lever B, and another pin-and-slot connection C³ with the type-bar D.

40 E is the stationary cushion, on which the type-bars rest in their inactive position.

The type-bars are mounted on a pivot F, which is supported at the rear portion of the so-called "segment" G, which is secured to the frame of the machine. Each type-bar swings within a slot G' of the segment, and I prefer to make the type-bar with a deep notch D' and with a point D' between said notch and

the portion or hook D3 which engages the pivot F. The front side of the slots G is the 50 one which is most exposed to the entrance of dust, particles of paper, and other foreign matter. To provide efficient protection against the entrance of dust, &c., from this side, I cause the slots G' to terminate in the rear of 55 the vertical plane (indicated by the line G²) at the forward face of the segment. The detail construction may vary. Thus in Fig. 1 the segment portion G³, which forms the top wall of the slot G', is inclined downwardly from 60 the rear to the front and projects beyond the forward end of the slot, and thus forms a protecting-overhang H. In Fig. 2 the segment portion G⁴, forming the top wall of the slot G', is made horizontal, (although it might be 65 inclined;) but the front surface G'slopes downwardly from front to rear, so that here, too, the front end of the slot is in the rear of the vertical plane, (indicated by the line G²,) leaving the extreme front portion of the wall G⁴ 70 to form a protecting-overhang H'.

I desire it to be clearly understood that my invention is not restricted to the two forms shown in the drawings; but various other constructions within the scope of my invention 75 may be adopted to protect the front ends of the slots G'. There is but little danger of dust, &c., entering from the top, for the reason that the slots G' are covered—that is, they terminate short of the upper surface G⁶ of the seg-80 ment portion in which they are made. Even when this upper surface is horizontal, Fig. 2, the top wall of the slots G' may be inclined in the same manner as shown in Fig. 1. The overhang H also extends over the entire path 85. of the point D2, which forms the foremost point of the type-bars' pivot portion. Thus the overhang H efficiently protects the entire portion of each type-bar in front of the pivot F.

I claim as my invention—

1. In a type-writing machine, type-bars each having a pivot portion and a type-carrying shank connected therewith, in combination with a type-bar segment provided with a series of slots adapted to receive the type-bars, said 95 slots extending from rear to front and ter-

minating short of the vertical plane of the segment's front surface, being covered from above by a top wall having an overhang extending forwardly from the front ends of the slots and 5 over the path of the foremost point of the pivot

portion of a type-bar.

2. A type-bar segment provided at its lower portion with a series of slots adapted to receive the type-bars, a portion of the segment form-10 ing an inclined top wall for said slots, which terminate short of the forward end of said top wall, so that the latter forms an overhang to protect the forward ends of the slots against the entrance of foreign matter:

3. In a type-writing machine, type-bars each having a pivot portion and a type-carrying shank connected therewith, in combination

with a type-bar segment provided with a series of slots adapted to receive the type-bars, a portion of the segment forming a top wall for the 20 said slots to cover them from above, said top wall being extended beyond the ends of the slots so as to form an overhang to protect the ends of the slots against the entrance of foreign matter, said overhang also extending over 25 the entire path of the foremost point of the pivot portion of a type-bar.

In testimony whereof I have hereunto set my hand in the presence of two subscribing

witnesses.

CHARLES W. HOWELL, Jr.

Witnesses:

LEE S. BURRIDGE, EUGENE EBLE.