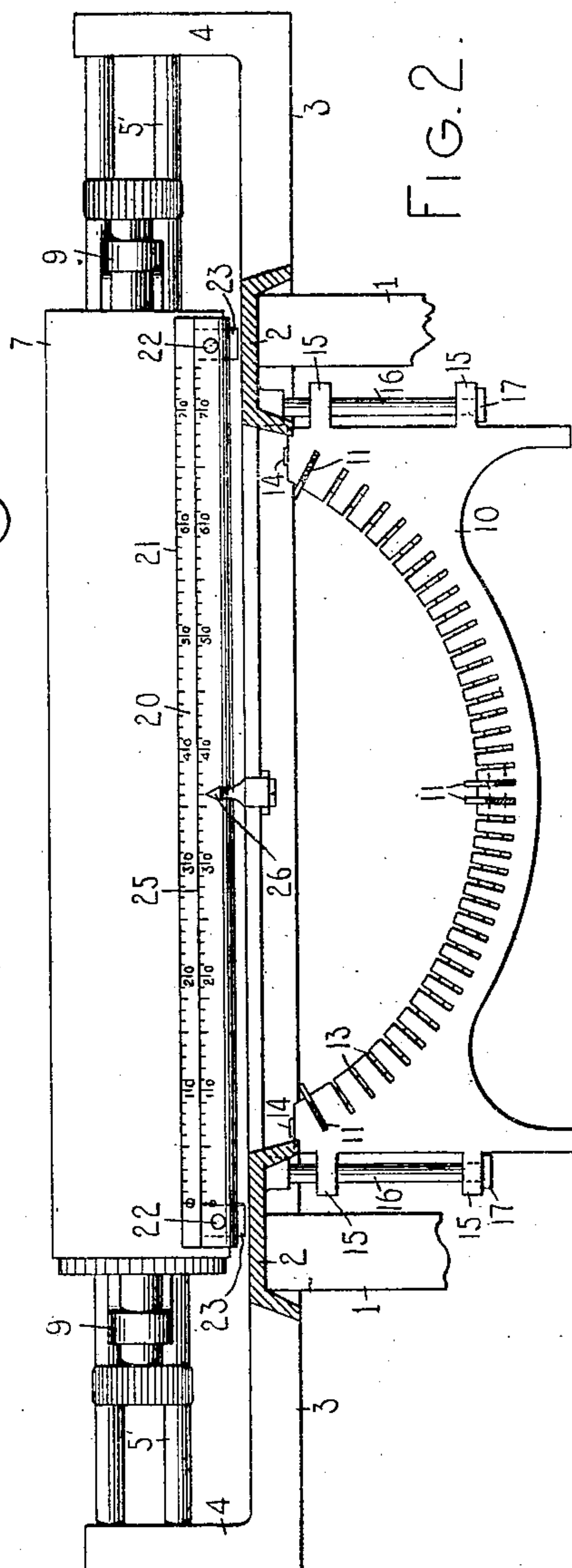
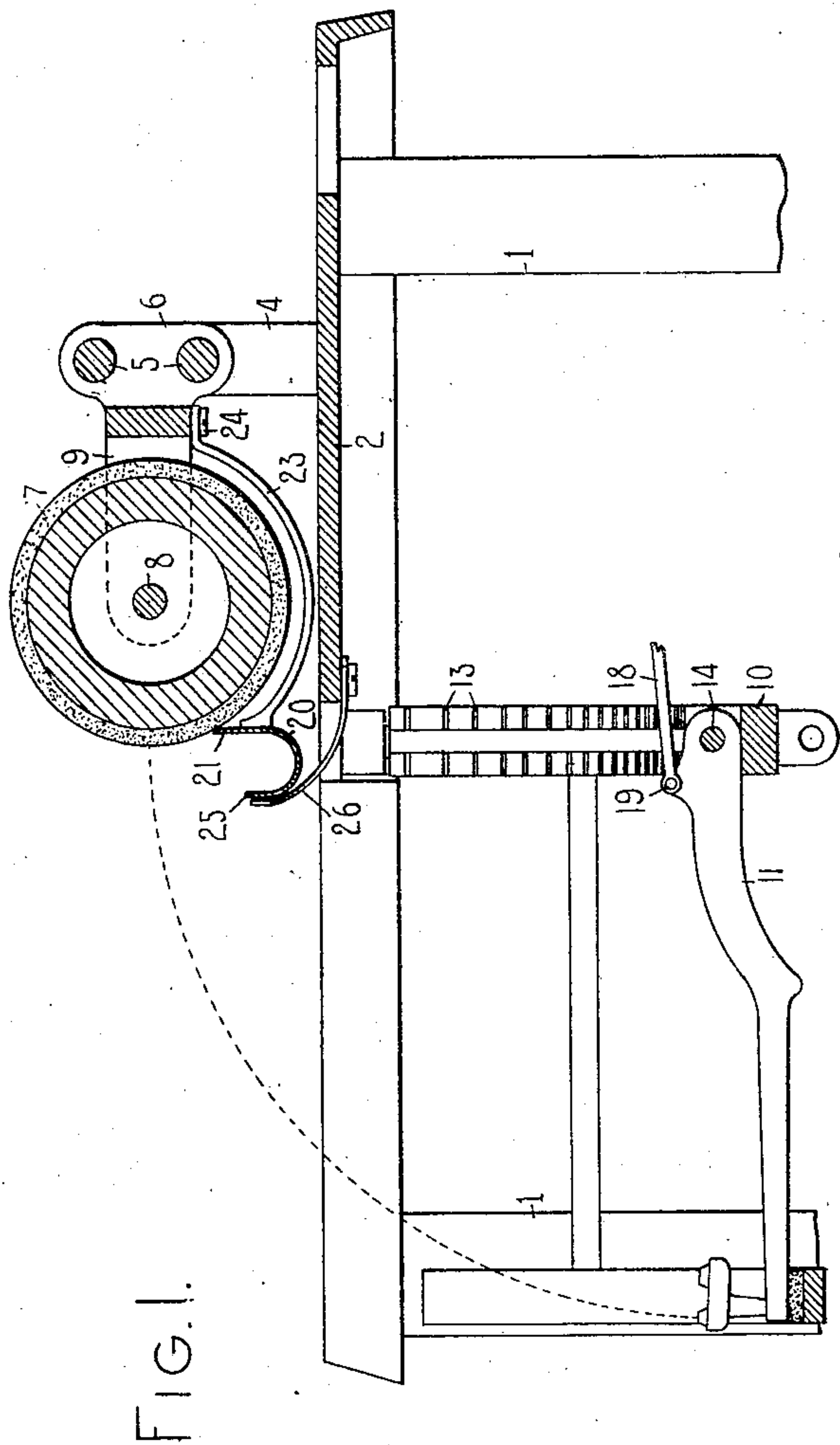


No. 862,621.

PATENTED AUG. 6, 1907.

B. EGGER.  
TYPE WRITING MACHINE.  
APPLICATION FILED MAR. 13, 1905.



WITNESSES.

E. M. Wells.  
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# UNITED STATES PATENT OFFICE.

BENNO EGGER, OF ZURICH, SWITZERLAND, ASSIGNOR TO UNION TYPEWRITER COMPANY,  
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## TYPE-WRITING MACHINE.

No. 862,621.

Specification of Letters Patent.

Patented Aug. 6, 1907.

Application filed March 13, 1905. Serial No. 249,861.

*To all whom it may concern:*

Be it known that I, BENNO EGGER, a citizen of Switzerland, and a resident of Zurich, Switzerland, have invented certain new and useful Improvements  
5 in Type-Writing Machines, of which the following is a specification.

My invention relates to typewriting machines and it has for its principal object to provide an improved dust guard to protect the bearings of the type bars of a front  
10 strike typewriter from the dust, more especially the product of erasures, which is liable to fall from the platen of such machines into the bearings of the type bars.

A further object of my invention is to provide a com-  
15 bined dust guard or shield, platen plate, platen scale and carriage scale.

To these and other ends, my invention consists in certain features of construction, and combinations and arrangements of parts which will be fully set forth here-  
20 in and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a front to rear vertical section of a portion of a typewriting machine having my invention embodied therein; and Fig. 2 is a front view of the same in vertical section,  
25 said section being taken a little in front of the platen.

The main frame of the machine to which I have shown my invention applied, comprises the usual base portion from which rise posts 1, which support a top plate 2. Said top plate has laterally extending arms or brackets 3  
30 from which rise posts 4 which support the ends of a pair of fixed transverse rods or rails 5 on which a carriage 6 is adapted to slide back and forth. Said carriage is, or may be, drawn to the left by the usual spring drum controlled by the usual escapement mechanism; or said  
35 carriage may be fed across the machine in any suitable manner. A roller platen 7 has its shaft 8 journaled in forwardly projecting arms 9 of the carriage 6. A type bar segment 10 is mounted below the platen and has pivoted therein in any suitable manner front strike  
40 type bars 11 which carry types 12 which are adapted to strike against the front face of the platen in a well-known manner. In the present instance I have shown the segment 10 formed with a series of radial slots 13 in which the type bars 11 are pivoted on a pivot wire 14,  
45 which lies in a slot formed in the inner face of the segment. In the present instance I have shown two types 12 mounted on each type bar and the segment 10 is shiftable up and down to bring one or the other of said types to printing position. To this end, said segment  
50 is formed at its ends with ears 15 through vertical openings in which pass fixed pins or rods 16 which hang from the top plate 2 and which are formed at their lower ends with heads 17 to limit the downward movement of the segment. The segment may be shifted up and  
55 down, sliding on the rods 16, by any suitable means.

The type bars are actuated by links 18 which are pivoted to the type bars at 19 and which are connected by any suitable system of sub-levers to key levers provided with the usual keys.

In machines of this type erasures are made on the  
60 front face of the platen and the dust or rubbings so produced, consisting of portions of the paper and ink and portions of the rubber eraser, are liable to fall into the bearings of the type bars. In order to catch this dust, I  
65 mount on the carriage below the printing point, a dust guard 20 having the form of a trough. This trough may obviously be made in a variety of ways and may be mounted on the carriage by a variety of means. As  
70 shown in the present instance, said trough or dust guard consists of a strip of sheet metal having approximately the length of the platen and bent back upon itself by a longitudinal bend in the manner shown in Fig. 1. The  
75 rear wall or fold 21 of the dust guard has its upper edge in engagement with the platen and this portion of the trough constitutes the platen plate of the machine. Said rear wall is secured by rivets 22 to the forward ends  
80 of two spring arms 23 which lie between the platen and the top plate and are secured to the carriage by means of screws 24. That portion of the dust guard which constitutes the platen plate is pressed against the platen  
85 or against the paper thereon by the resiliency of the spring arms 23. The forward wall or fold 25 of the dust guard is made a little lower than the rear wall 21 and the front surface of this wall is also preferably graduated as  
90 shown in Fig. 2 to constitute a carriage scale, the graduations on this wall of the trough corresponding to those on the rear wall 21. Coöperating with the carriage scale is a pointer or index 26 which is secured to the top plate  
95 2. It will thus be seen that the trough 20 performs the functions of a dust guard, a platen plate, a platen scale and a carriage scale. It will be perceived that the forward wall 25 of the dust trough stands forward of the front face of the platen, but the types 12 stand out from their type bars as shown in Fig. 1 so that the type bar does not strike the dust guard nor the index 26.

Various modifications in construction and arrangement of parts may be made without departing from the gist of my invention.

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

1. In a typewriting machine, the combination of a platen and a straight dust guard horizontally disposed beneath the printing line and adjacent thereto.

2. In a typewriting machine, the combination of a platen having a letter space movement; types adapted to strike said platen; and a dust trough or receptacle mounted to move with said platen and arranged to catch dust falling from said platen.

3. In a typewriting machine, the combination of printing instrumentalities, a platen, a carriage, and a dust receptacle or trough mounted on said carriage and arranged to catch dust falling from said platen.



4. In a front strike typewriting machine, the combination of a carriage; a platen mounted in said carriage; type bars pivoted below said platen and carrying types adapted to strike against the front face of said platen; and a dust shield mounted on said carriage above the pivots of the type bars.

5. In a front strike typewriting machine, the combination of a carriage, a platen mounted on said carriage, types adapted to strike against the front face of said platen, and a dust guard having the form of a sheet metal trough mounted on said carriage and located beneath the writing line.

6. In a typewriting machine, the combination with a movable platen, of a combined dust guard and scale arranged to catch dust falling from said platen.

7. In a typewriting machine, the combination with a platen and a series of pivoted type bars, of a combined dust guard and platen plate situated above the pivots of the type bars.

8. In a typewriting machine, the combination with a movable platen and a series of pivoted type bars, of a combined platen plate, scale and dust guard situated above the pivots of the type bars.

9. In a typewriting machine, the combination of a carriage, a platen mounted in said carriage, types adapted to strike against the front face of said platen, and a platen plate mounted by spring arms on said carriage, said platen plate lying below the writing line and being so formed as to constitute a dust guard.

10. In a front strike typewriting machine, the combination of a carriage, a platen mounted in said carriage, type bars pivoted below said platen and carrying types adapted to strike against the front face of said platen, a horizontally disposed trough mounted on said carriage and having its rear wall graduated to constitute a platen scale and its front wall graduated to constitute a carriage scale, and an index cooperating with said carriage scale.

11. In a front strike typewriting machine, the combination of a carriage, a platen mounted on said carriage, front strike type bars pivoted below said platen and carry-

ing types adapted to strike against the front face of said platen, and a dust trough located between the writing line and the pivots of said type bars and having a line of graduations constituting a carriage scale and an index cooperating with said scale.

12. A scale plate for typewriting machines bent back upon itself by a longitudinal bend along the bottom thereof, the forward fold of the plate being of less width than the back fold thereof, said plate having a platen scale on the forward surface of the back fold and a carriage scale on the forward surface of the forward fold.

13. In a typewriting machine, the combination with a platen, of a platen plate bent back upon itself by a longitudinal bend, thus forming a back fold and a forward fold of said plate, said back fold constituting a platen plate and said forward fold being graduated on its forward surface to constitute a scale.

14. In a typewriting machine, the combination with a platen, of a platen plate bent back upon itself by a longitudinal bend, thus forming a back fold and a forward fold of said plate, said back fold constituting a platen plate and being graduated on its forward surface to constitute a platen scale, and said forward fold being graduated on its forward face to constitute a carriage scale.

15. In a typewriting machine, the combination of a carriage, a platen carried thereby, a series of type bars, and a dust guard carried by said carriage and interposed between the point on the platen where the types strike and the pivotal bearings of the type bars.

16. In a typewriting machine, the combination with a movable platen, of a combined dust guard and scale arranged longitudinally of the platen under the printing line and mounted to travel with said platen.

Signed at Zurich, Switzerland, this 16th day of February, A. D. 1905.

BENNO EGGER.

Witnesses:

ALBERT HOFER,  
EDUARD LOOSER.