

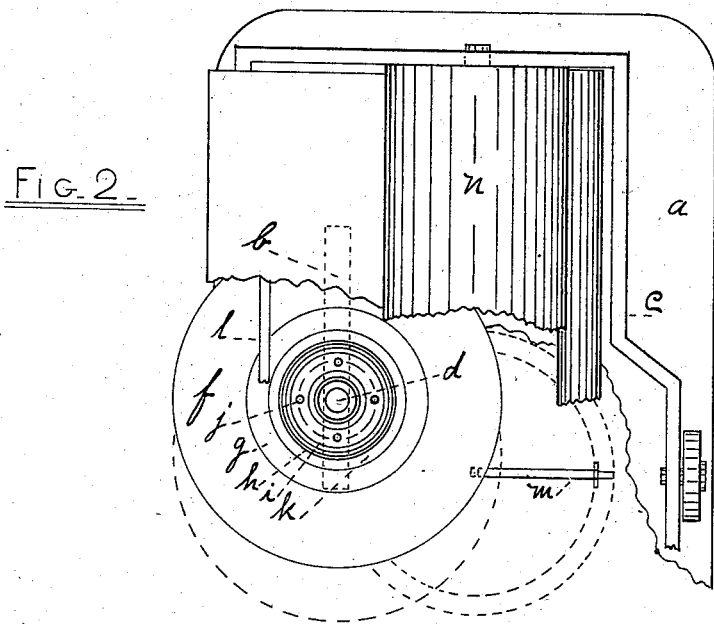
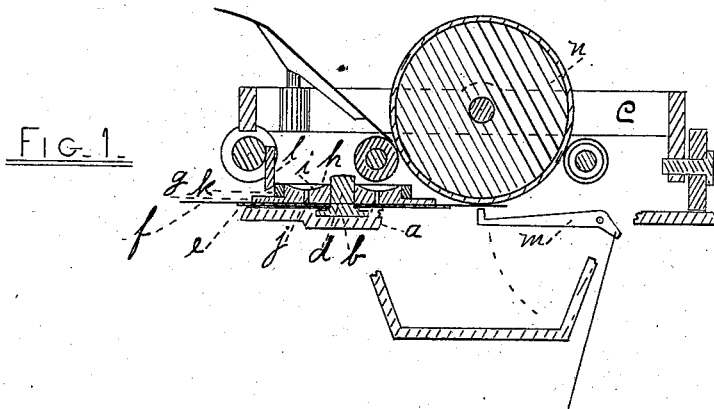
(No Model.)

L. S. CRANDALL.

INKING DEVICE FOR TYPE WRITING MACHINES.

No. 381,910.

Patented May 1, 1888.



Witnesses:

Charles M. Drouse.
Horace Walpole

Inventor:

Lucius S. Crandall.

UNITED STATES PATENT OFFICE.

LUCIEN S. CRANDALL, OF SYRACUSE, NEW YORK.

INKING DEVICE FOR TYPE-WRITING MACHINES.

SPECIFICATION forming part of Letters Patent No. 381,910, dated May 1, 1888.

Application filed December 23, 1885. Serial No. 186,511. (No model.)

To all whom it may concern:

Be it known that I, LUCIEN S. CRANDALL, a citizen of the United States, residing at Syracuse, in the county of Onondaga and State of New York, have invented a new and useful Improvement in Inking Devices for Type-Writing Machines, of which the following is a specification.

My invention is designed as a substitute for the ribbon and ribbon shifting mechanism in common use in type-writers.

In the accompanying drawings, which form a part of this specification, and in which similar letters refer to similar parts, my device is shown as applied to that form of type-writer in which the types are placed on the free ends of a series of type-bars hung in a circle and delivering their impression at a common central printing-point; but I do not confine myself to this mode of application, as my device is applicable to other styles of type-writers.

In said drawings, Figure 1 represents a vertical cross section of the upper parts of a type-writer of the form mentioned, with a vertical cross-section of my invention in connection therewith; and Fig. 2 is a partial top view of a type-writer, as above, cut away, so as to more fully show my invention and its application thereto.

In the top plate, *a*, of a type writer is formed a T-slot, *b*, parallel to the direction in which the carriage *c* travels. In *b* is fitted a T-headed stud, *d*, with sufficient tightness to retain its position ordinarily, but also with sufficient looseness to be capable of being moved longitudinally in *b*. A thin supporting-flange, *e*, fits loosely onto *d* above *a*. Superimposed upon *e* is a cloth disk, *f*, made of such material as is commonly used for type-writer ribbons. Fitting loosely upon *d* and superimposed upon *f* is another flange, *g*. This flange is provided at its central part with a large hub or boss, *h*, which is provided on its upper side with an annular trough, *i*. Certain small holes *j* in *i* lead down through *g* onto *f*. Surrounding *h* and attached thereto is a band of soft rubber, *k*. A downwardly-projecting lug, *l*, on the paper-carriage *c* bears against *k*, and as the carriage moves along causes *g*, *f*, and *e* to rotate on *d*.

It will be observed that *f* projects over the printing-point of the type-bars *m*, intervening between them and the platen *n*, and whenever

the carriage *c* moves along to provide a place for a fresh impression, *f*, also moves axially and presents a fresh portion of inking-ribbon over the printing-point.

By reference to Fig. 2 it will be seen that *d* is placed in *b* to one side of an imaginary right-angled line through the printing-point, so that when *d* is slid along in *b* toward said line the inking-disk *f* will overlap the printing-point more than before, and so provide a before unused annular section of inking-surface.

The annular trough *i* and holes *j* are provided as a means of supplying fresh ink to the cloth disk *f*. The gradual absorption of said ink by *f* and its distribution by capillary attraction in *f* keeps *f* in condition for constant use.

Means for preventing the natural droop of the outer rim of *f* at the printing-point and a frisket to prevent *f* from flapping up against *n* are familiar to and in common use by printers, and are not deemed necessary to be shown herein.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a type-writer, a rotating inking-disk composed of cloth, felt, or other fibrous material interposed between and in combination with the platen and type system of said type-writer, presenting unused or fresh portions of an annular section of said disk between said platen and said type system after each and every impression of said type, substantially as set forth, and an annular ink-containing trough superimposed upon and communicating with said disk for the purpose of supplying ink thereto and moving axially therewith, substantially as described.

2. The combination of means, substantially such as the disk *f*, the supporting-flange *e*, the retaining-flange *g*, the ink-supplying trough *i*, and the movable supporting-stud *d*, for the purpose of providing an inking device for a type-writer, substantially as set forth.

In witness whereof I have hereunto subscribed my name in presence of two subscribing witnesses.

LUCIEN S. CRANDALL.

Witnesses:

CHARLES M. CROUSE,
CHARLES A. DONNELLY,