(No Model.)

L. H. ROGERS.

BOX FOR TYPE WRITER RIBBONS.

No. 485,712. Patented Nov. 8, 1892.

FIG. I.

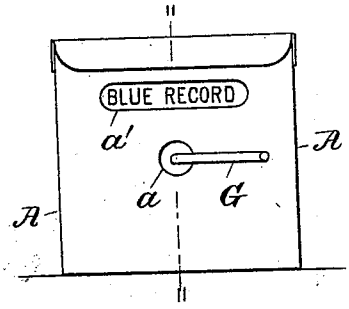

FIG. II.

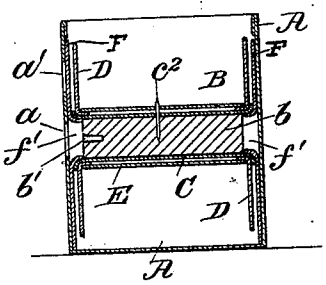

FIG. III.

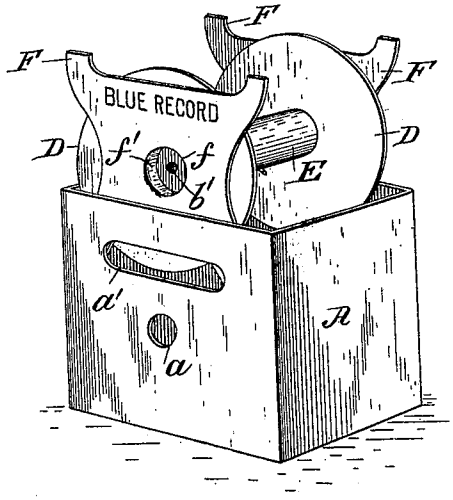

FIG. IV.

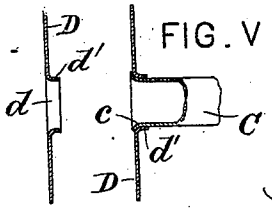

FIG. V

Attest:
Geo. T. Smallwood.
Reve Lewis.

Inventor:
Lebbeus H. Rogers.
by Pollock & Mann,
his attorneys.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

LEBBEUS H. ROGERS, OF NEW YORK, N. Y., ASSIGNOR TO THE ROGERS MANIFOLD AND CARBON PAPER COMPANY, OF SAME PLACE.

BOX FOR TYPE-WRITER RIBBONS

SPECIFICATION forming part of Letters Patent No. 485,712, dated November 8, 1892.

Application filed May 2, 1892. Serial No. 431,401. (No model.)

To all whom it may concern:

Be it known that I, LEBBEUS H. ROGERS, of the city, State, and county of New York, have invented a new and useful Improvement in Boxes for Type-Writer Ribbons, which is fully set forth in the following specification.

This invention has reference to means for packing type-writer ribbons for transportation and delivery to users.

The object of the invention is to prevent the necessity of handling the type-writer ribbons in transferring the same from the boxes in which they are packed to the machine, and also to provide means for readily repacking same, if desired. In boxes of this class heretofore in use it has been customary to form the bearings directly in the sides of the box, which necessitates certain inconveniences in placing the reel in position. This objection I obviate by providing a suitable packing-box formed with a removable reel journaled in suitable supports, which is fully illustrated in the accompanying drawings, in which—

Figure I is a side elevation of my improved shipping-box. Fig. II is a central vertical section on line II II, Fig. I. Fig. III is a perspective view of the box, showing the reel and supports in a position ready to be forced into the box; and Figs. IV and V are detail views showing the construction of the reel.

In the drawings, A represents the box or casing of any suitable size, preferably made of sheet metal, having a central circular opening *a* and a display-opening *a'* in one side thereof, for purposes hereinafter described.

B is a reel having a cylindrical central core of wood *b*, around which is formed an inner metallic tube C, projecting beyond the ends thereof.

D are circular metallic disks or reel-heads stamped from thin sheet metal, having central openings *d*, around which are inwardly-projecting flanges *d'*. These reel-heads are slipped onto the opposite ends of the inner metallic tube C, which passes through the openings *d* and flanges *d'*, engaging against the tube C. After the heads D have been placed on the tube C a second cylindrical tube E is formed around the tube C of a length slightly less than the length of the latter. This tube E engages against the outer faces of the flanges *d'* and abuts against the inner faces of the reel-heads D, the same being clamped tightly in place by the projecting ends *c*, Fig. V, of tube C, which are formed into outwardly-projecting right-angle flanges by a suitable die or otherwise, thus preventing any possibility of the ends D coming off. To prevent the wooden core from becoming misplaced, a nail c^2 is driven through the tubes C and E into the same, the outer end of the nail being sharpened to form a securing-point for the inner end of the ribbon.

F are suitable supports stamped from thin sheet metal, formed with central openings *f*, having inwardly-extending flanges *f'*, formed around the inner edges thereof, which extend into the outer ends of the tube C, forming bearings for the reel. The boxes A are made of such a width that when the supports and reel are placed in their relative positions and forced into the same, as plainly shown in Fig. III, the supports will be held tightly in engagement with the ends of the reel, which bear directly against the flanged ends of tube C, thus lessening the frictional contact between the supports and reel-heads. For the purpose of revolving the reel to wind the ribbon on the same I provide a crank-handle G with each box, which engages in a suitable socket *b'* in the wooden core *b*, passing through the circular openings *a* and *d* in the box and support, respectively.

Instead of printing the kind and color of ribbon on the box, I use the same boxes for all ribbons and paint descriptive words on one of the supports F behind the display-opening *a'*.

It will be observed, among other advantages of the invention, that the box is very easily and cheaply made, the principal parts being all stamped out from thin sheet metal in such form as to be readily assembled together.

I do not wish to limit my invention to use in connection with type-writer ribbons, as it is evident that it may be used in shipping and packing all kinds of ribbons and similar articles. I also do not limit myself to the exact construction of and to the materials used in the manufacture of the article, as herein

described, as both may be changed without departing from the principle of the invention.

What I claim is—

1. The combination, with the box and removable reel formed with apertures in the ends thereof, of removable supports for the reel, formed with bearings adapted to fit in the apertures in the ends of the reel, said supports and reel being held in position by the sides of the box, and means for revolving the reel to wind the ribbon thereon, substantially as described.

2. The combination, with the box and a reel formed with apertures in its ends, of supports for the reel, formed with central openings therein, inwardly-extending flanges around the openings, projecting into the apertures in the ends of the reel and forming bearings for the same, and means for revolving the reel, substantially as described.

3. The combination, with the box having an opening in one side thereof and a reel formed with apertures in its ends, of supports for the reel, formed with central openings therein, inwardly-extending flanges around the openings, projecting into the apertures in the ends of the reel, forming bearings for the same, and a crank-handle, one end of which is adapted to be passed through the openings in the side of the box and support and into a suitable socket in the end of the reel for revolving the same, substantially as described.

4. The combination, with the box and reel-supports, of a reel comprising an inner metallic tube, reel-heads having central openings therein, through which the ends of the inner tube project, an outer tube abutting against the inner faces of the latter, outwardly-extending flanges formed by the projecting ends of the inner tube, whereby the reel-heads are clamped securely in place, and removable sheet-metal supports having annular flanges adapted to fit in the inner tube, substantially as described.

5. The combination, with the box, of a reel consisting of a central core, an inner tube formed on the core and projecting beyond the ends of the same, reel-heads having central openings therein, through which the ends of the tube project, inwardly-extending flanges around the opening in the reel-heads, bearing against the inner tube, an outer tube of a length greater than the length of the core, but less than the length of the inner tube, engaging against the outer faces of the inwardly-extending flanges on the reel-heads and abutting against the inner faces of the latter, outwardly-extending right-angled flanges formed by the projecting end of the inner tube, whereby the reel-heads are clamped securely in place, and supports for the reel, having central openings therein, and inwardly-extending flanges around the openings, projecting into the inner tube of the reel and forming bearings for the same, substantially as described.

6. The combination, with the box having a display-opening in one side thereof, of a reel and its supports, which are removable from the box, one of said supports when in place closing said display-opening and having a portion exposed through the same, so that an inscription thereon describing the character of the ribbon will be exhibited without opening the box or exposing any part of the ribbon itself, substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

LEBBEUS H. ROGERS.

Witnesses:

PHILIP MAURO,

REEVE LEWIS.