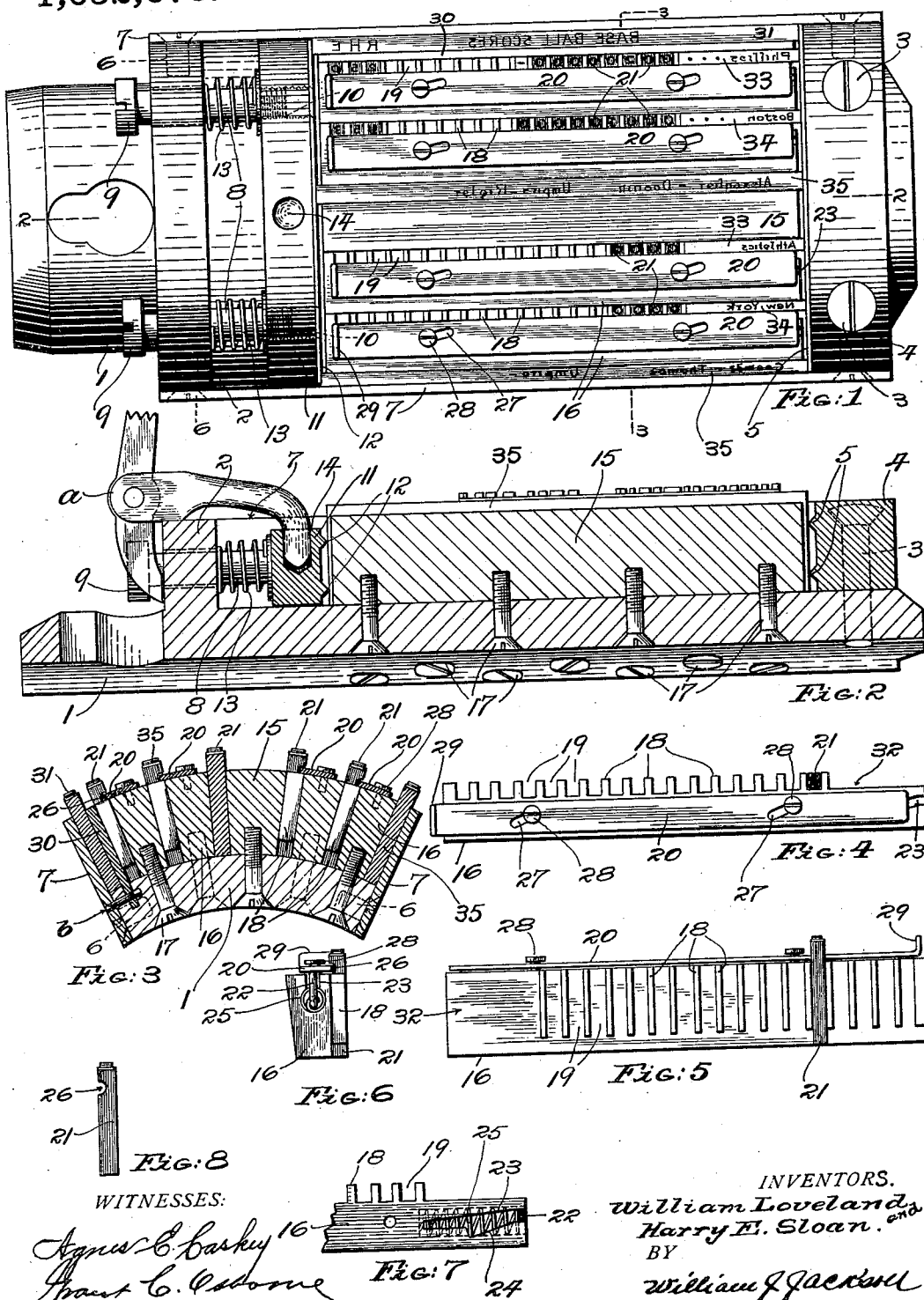


APPLICATION FILED JULY 7, 1911.

Patented Feb. 11, 1913.

1,052,678.



# UNITED STATES PATENT OFFICE.

WILLIAM LOVELAND AND HARRY ELLWOOD SLOAN, OF PHILADELPHIA,  
PENNSYLVANIA.

TYPE-TURTLE OR FUDGE-BED FOR ROTARY PRINTING-PRESSES.

1,052,678.

Specification of Letters Patent.

Patented Feb. 11, 1913.

Application filed July 7, 1911. Serial No. 637,311.

*To all whom it may concern:*

Be it known that we, WILLIAM LOVELAND and HARRY ELLWOOD SLOAN, citizens of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have jointly invented a certain new and useful Type-Turtle or Fudge-Bed for Rotary Printing-Presses, of which the following is a specification.

This invention broadly relates to rotary printing presses and has more particular relation to an improved type-turtle or fudge-bed for the printing cylinder.

The principal object of the present invention may be said to reside in the providing of a type-turtle or fudge-bed so arranged, constructed and connected that while the same is locked to place upon the printing cylinder, and during stoppage of the press parts, individual type and type slugs having notched shanks may be readily and expeditiously fitted to pockets in the type-turtle and interlocked with respect thereto without danger of the contents of the type-turtle dropping into the press parts.

A further object of the present invention is to provide a type-turtle or fudge-bed so arranged, constructed and connected that while the same is locked to place upon the printing cylinder, and during stoppage of the press parts, and while the type and type slugs having notched shanks are interlocked with respect to the type-turtle, other slug type having unnotched shanks may be fitted and locked to place, independently of the first mentioned type and type slugs, without danger of the contents of the type-turtle dropping into the press parts.

Other and further objects of the invention reside in the providing of general details of construction and arrangement of parts as will hereinafter more fully appear.

With these and other objects in view, the invention consists of the improvements hereinafter described and finally claimed.

The nature, characteristic features and scope of the invention will be more fully understood from the following description, taken in connection with the accompanying drawings forming part hereof and in which:

Figure 1, is a top or plan view of the type-turtle or fudge-bed embodying the invention, Fig. 2, is a view in longitudinal section taken upon the line 2—2, of Fig. 1, Fig. 3, is a view in transverse section taken upon

the line 3—3 of Fig. 1, Fig. 4, is a top or plan view of one of the detachable and toothed segments, and illustrating the resiliently held latch in shifted position, Fig. 5, is a view in front elevation of one of the segments, Fig. 6, is a view in end elevation of Fig. 5, Fig. 7, is a fragmentary view illustrating a detail of construction of one end of the segment shown in Figs. 4, 5, and 6, and Fig. 8, is a view in elevation of one of the individual types having a notched shank as used in the device of the invention.

In newspaper and like printing great difficulty has been experienced in obtaining quick results in printing the latest news of base ball, foot ball and other sports due to the fact that at present the type-turtles or fudge-beds must be removed from the printing press and the types, type slugs and leads re-arranged and the type-turtle or fudge-bed again adjusted to the press cylinder. Obviously, such a procedure consumes much time and labor and holds up other work on the press in the meantime. Aside from this fact the contents of the type-turtle or fudge-bed not being interlocked are apt to drop into the press parts during operation of the press which also is very disadvantageous. By the invention about to be described the type-turtle or fudge-bed while still locked to place upon the cylinder of a press may have readily and expeditiously fitted and locked to place therein individual type and type slugs in a few moments' time.

Referring to the drawings there is disclosed a physical embodiment of the invention constructed in a manner best known to us at this time for practising the invention.

The device is shown as comprising a one-piece comparatively thick bed piece 1, which as shown in Fig. 3, is formed upon an arc of a circle. In use the bed piece is adapted for attachment to the cylinder of a printing press in a well-understood manner. As shown in Fig. 2, one end of the bed piece 1, has formed integral therewith and extending upwardly therefrom an end plate 2. The opposite end of the bed piece 1, has secured thereto as by means of screws 3, another end plate 4, the inner face of which is serrated as at 5. These end plates 2, and 4, are also formed upon arcs of circles to conform to the configuration of the bed piece 1. Connecting the end plates 2, and 4, and secured thereto as by means of screws 6,

are side plates 7, to complete the turtle. The end plate 2, is apertured for the working therethrough of bolts 8, the heads 9, of which are located exteriorly of the device as a whole and the shanks of which project through the said apertures and have screw-threaded relation as at 10, with a resiliently held head 11, which is serrated upon its inner face as at 12. Spiral springs 13, serving as cushions are interposed between the head 11, and end plate 2, and are shown as being wound around the shanks of the bolts. By this arrangement and construction of parts the head 11, may be caused to advance toward or away from the end plate 2, when occasion demands. To accomplish this movement use may be made of a tool *a*, as shown in Fig. 2, the head 11, being apertured as at 14, to accommodate the jaw of said tool. Thus, the resiliently held head 11, stationary end plate 3, side plates 7, and the base piece 1, constitute in effect the boundaries of a type receiving space. Within this type receiving space are located a series of elongated detachable segments 15, and 16, arranged side by side and closely adjacent one another, the respective ends of which do not quite reach the end plate 4, or head 11. These segments are held stationary with respect to the base piece 1, by means of screws 17. As shown the central segment 15, is provided with plane surfaces, while the segments 16, are provided upon one of their faces and throughout a portion of their length with tooth-like formations 18, adapted to abut against the plane faces of adjacent segments to form individual type receiving pockets 19. The remainder of the length of each of said segments is provided with a type slug receiving space 32. As clearly illustrated in Figs. 3, 5, and 6, the tooth-like formations do not extend to the bottom of the segments 16. The purpose of this is to facilitate cleaning out of the type receiving space when occasion may require. Surmounting the segments 16, are resiliently held latches 20, adapted to cooperate with and interlock with respect to the pockets 19, removable individual type 21, having shanks which are notched as at 26. As shown in Fig. 6, each latch 20, is provided at one end with a depending rod 22, adapted to work through a slot 23, in the top of each segment 16, each slot 23, being inclined as at 24, for a purpose presently to appear. Beneath the slotted portion 23, of the segments 16, the said segments are each bored longitudinally to receive a coiled spring 25. The spring 25, serves to press against the rods 22, of the latches 20, and normally hold them in a position shown in Figs. 1, 3, and 6, or in other words overhanging the pockets 19, before described said latches in this position engaging the notches 26, of the shanks of the type 21, and inter-

locking the type with respect to the type-turtle. In order to accomplish shifting of the latches 20, from this position, the said latches are slotted as at 27, for cooperating with studs shown as comprising screws 28, fitted to the tops of the segments 16. The screws 28, and slots 27, which are arranged at an angle and the inclined portion 24, of the slot 23, in effect constitute a cam movement for said latches, each latch being provided at one end with a lip 29, to facilitate movement of the latches.

The type as made up in the type-turtle or fudge-bed as shown in the drawings, illustrates for the purpose of explanation, the score by innings of two base ball games, the segment 15, serving as a spacer to separate the two games. The following description will be restricted thereto, although obviously the invention is not limited to such use, as the same is applicable for use in connection with the printing of results of foot ball, soccer games and other sports, market quotations and other purposes for which quick action is required in printing latest news to occupy space being temporarily held vacant upon newspapers and the like.

Referring now more particularly to Fig. 1, and reading from the top of the figure downward there is shown as being interposed between the side plate 7, and a fixed auxiliary plate 30, which is fitted to a groove in the base piece and held in place by pins *b*, a type slug 31, having delineated thereon the words "Base ball scores" and symbols indicating "runs, hits and errors." As shown this type slug 31, abuts against the serrated portion 5, of the end plate 4, and the serrated portion 12, of the resiliently held head 11, abuts against the opposite end of said type slug thereby securely holding the same in place. Shown as abutting against the auxiliary plate 30, are the tooth-like projections or formations 18, of one of the segments 16, that go to make up pockets 19, and occupying the space 32, provided by omitting the teeth 18, upon the segments 16, is a type slug 33, the shank of which is notched, designating the name of one of the contesting teams. Immediately below this segment 16, is a similar segment and a notched type slug 34, designating the name of the other of the contesting teams. It will be here understood that the type slugs 33, and 34, are interlocked by the latches 20. Below this segment is a type slug 35, indicating the batteries of the two teams and the umpires officiating. Immediately below the segment 15, which separates the base ball score are duplicates of the above described segments and type slugs containing the names of other contesting teams, batteries and umpires, further description of which is thought to be unnecessary. The device as a whole is clamped to place upon the printing cylinder

and rotates therewith and as reports come in over the telephone or by telegraph of late scores, it is merely necessary to stop the press for an instant, shift to the left in Fig. 1, the proper latch 20, of its complemental segment 16, and fit within one or more of the pockets 19, proper individual and notched type. Upon release of the latch 20, the same moves to the right and also inwardly and engages the notches 26, of the various individual types and notches of the type slugs, and interlocks them with respect to the type-turtle or fudge-bed and the press may be then immediately started and printing of the newspaper or the like continued. In this connection, it may be remarked, that during the inserting or removal of individual type to or from one of the segments, all danger of other type falling into the press parts from other segments is eliminated in that each segment has its own complemental type interlocked by virtue of its latch and the resiliently held head 11, holds the type slugs in place. Obviously, if it be necessary to adjust the type slugs the same may be accomplished by using the tool *a*, to withdraw the head so that other type slugs may be inserted. In this event the individual types cannot fall out as they are interlocked independently of the type slugs.

What we claim is:

1. A type-turtle of the class described having a member provided with a multiplicity of alined individual pockets for receiving the notched shanks of removable type, removable type having notched shanks, resiliently held latches operatively connected with respect to the type-turtle for cooperating with and interlocking the notched shanks of said type with respect to the type-turtle, other type removably fitted to the type-turtle and a resiliently held head for locking the last-mentioned type with respect to the type-turtle independently of the first-mentioned type.

2. In a type-turtle of the class described, removable type having notched shanks, toothed segments removably secured within the type-turtle said segments providing a multiplicity of alined individual pockets to receive the notched shanks of the type, a resiliently held latch for each segment for cooperating with and interlocking the notched shanks of the type with respect to the type-turtle, other type removably fitted within the type-turtle and a resiliently held head for locking the last-mentioned type to the type-turtle independently of the first-mentioned type.

3. In a type-turtle of the class described, removable type having notched shanks, removable type slugs having notched shanks,

segments fixed to and located within the type-turtle said segments having throughout a portion of their length individual pockets to receive the shanks of the type, the remainder of the length of said segments being formed to provide a space to receive the shanks of the type slugs and a resiliently held latch for each segment said latch extending throughout the length of its complemental segment for cooperating with and interlocking the notched shanks of the type and type slugs with respect to the type-turtle.

4. In a type-turtle of the class described, removable type having notched shanks, toothed segments within the type turtle arranged side by side and closely adjacent one another, so that the toothed portions of the segments cooperate with adjacent segments to form alined individual pockets to receive the shanks of the type and an end-wise shiftable resiliently held latch for each segment for cooperating with and interlocking the shanks of the type with respect to the segments.

5. In a type-turtle of the class described, removable type having notched shanks, toothed segments removably secured to said turtle said segments being arranged side by side and closely adjacent one another so that said toothed portions of the segments cooperate with adjacent segments to form alined individual pockets to receive the shanks of the type and a resiliently held latch for each segment for cooperating with and interlocking the shanks of the type with respect to the segments.

6. In a type-turtle of the class described, removable type having notched shanks, removable type slugs having notched shanks, segments fixed within the turtle said segments being arranged and constructed to provide alined individual pockets throughout a portion of their length to receive the shanks of the type, the remaining portion of said segments being constructed to provide a space to receive the shanks of the type slugs, resiliently held latches for each segment for cooperating with and interlocking said type and type slugs with respect to the type-turtle, unnotched type slugs removably fitted to the type-turtle and a resiliently held head for locking the last mentioned type slugs with respect to the type-turtle independently of the first mentioned type or type slugs.

In testimony whereof, we have hereunto signed our names.

WILLIAM LOVELAND.

HARRY ELLWOOD SLOAN.

Witnesses:

AGNES E. CASKEY,

WILLIAM J. JACKSON.