To all whom it may concern:

Be it known that I, DANIEL MORGAN JONES, a citizen of the United States, residing at Chattanooga, in the county of Hamilton and State of Tennessee, have invented certain new and useful Improvements in Duplex Mold-Liners for Linotype-Slug-Casting Machines, of which the following is a specification.

10 This invention relates to a duplex mold liner for use in connection with machines for casting lines of type and known to the trade as linotype machines.

The present improvement relates more particularly to that type of linotype machine placed on the market by the International Typesetting Machine Company of New York, N. Y., wherein liners are employed for defining the size of the type slug to be cast. It is customary, in the type of machine above mentioned, to furnish a set of left hand liners which are fractional in sizes providing for certain numbers of ems and half ems by means of which the length of slug cast may be regulated. Thus with a machine of this type after having cast a slug 15 ems in length in order to cast one 15\% ems in length it is necessary to change the set of liners used and provide the next half size. This not only requires considerable labor and consumes time but also makes it necessary to furnish each machine with a great many liners to provide for varying lengths of slugs which must be cast during ordinary operations, thereby materially increasing both the operation cost of the machine as well as making the initial cost high.

Therefore, one object of the present improvement resides in providing a liner which is duplex in its function in that it may be adjusted to provide for the fractional ems without removing the set, thereby saving time and thus increasing the efficiency of the machine, as well as lessening materially the first or initial cost due to the fact that one-half the usual number of liners is only necessary.

Another object resides in the particular manner of providing for the adjustment of the duplex liner.

With the above and other objects in view, I will now proceed to describe one specific embodiment of the invention which I have illustrated in the drawing hereunto annexed.

In the drawing:

Figure 1 is a view in elevation of a section of the mold disk and one of the molds of a linotype machine; and

Fig. 2 is a top plan view of the duplex liner.

In detail:

As the device is herein shown the mold disk which is a part of the present machine is indicated at 1 and carries supports spaced apart as shown, and between which the mold 3 is mounted. Pivoted in the supports 2, as shown at 4, are two bolts 5 and 6 which carry nuts 7 and 8, respectively. A head 9 is secured in place by the bolts 5 and 6 and is secured by nuts 7 and 8, and between the head 9 and the mold 3 are located the liners 10 and 11, the latter being hereinafter termed the permanent liner, since it is always the same as regards length though varying in other proportions according to the point or size of type to be cast.

In the face of the mold 3, adjacent the bolt 5 is located a pin 12 the purpose of which will hereinafter appear.

The liners 10 and 11 are each formed with end slots to receive the bolts 5 and 6 and one of which is shown at 13 on the liner 10. The liner 10 is duplex in its construction since it is so arranged that the same liner may be used to vary the length of the space formed to hold the metal as it is cast against the type matrices which are held in position to butt against the forward face of the mold.

As hereinbefore set forth the length of the space 14 varies according to the number of ems in the slug or linotype to be cast. Ordinarily, if an operator with the set up shown in Fig. 1 had just cast a line of 15 ems and wished to cast a line of 15\% ems, it would be necessary to completely replace liner 10 with a fraction liner. However, this invention eliminates this difficulty by providing two holes positioned longitudinally of the liner 10 in alignment and with centers spaced apart 3 ems. Therefore, when it is desired to set the liner 10 for a line having a fractional length it is only necessary to loosen nuts 7 and 8, remove head 9, and raise liner 10 off from pin 12, placing
it on the pin in the hole farthest from the slot 13, and again replacing the head 9 and completing the set up by tightening nuts 7 and 8. Thus it will be evident that the sets of one-half cms liners are entirely eliminated and the present liner is duplex in its functioning in that it provides for varying the space 14.

While, in the foregoing, I have described a specific embodiment of the invention, it is nevertheless to be understood that, in practising this invention, I may resort to such practical modifications thereof as fall within the scope of the invention as defined in the appended claim.

I claim:
The combination with a mold disk, of spaced supports carried by said disk, a mold mounted between said supports, screw-threaded bolts pivotally mounted in said supports, nuts provided on said bolts, a head secured to said bolts by said nuts, a plurality of liners having notched ends which engage said bolts and are secured between said mold and head by said nuts, a pin carried by said mold, and a plurality of longitudinally arranged apertures provided in one of said liners and having their centers spaced 1/4 cms apart, said pins being adapted to engage either of said apertures.

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

DANIEL MORGAN JONES.

Witnesses:

Fred. J. Howard,
L. A. Griffiths.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."