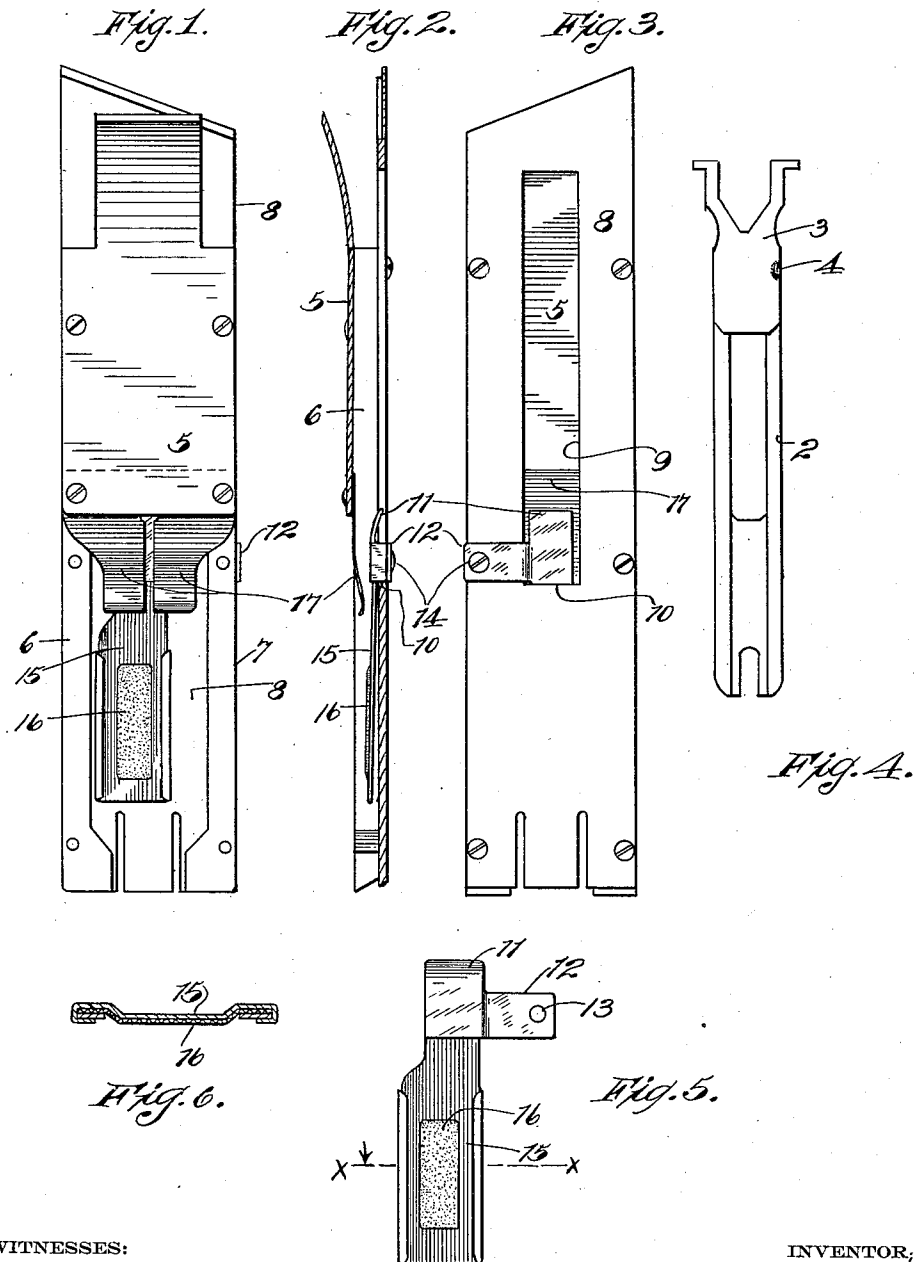


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SPACEBAND CHUTE.
APPLICATION FILED MAY 31, 1912.

1,064,247.

Patented June 10, 1913.



WITNESSES:

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UMBERTO PIAGNERI, OF SAN FRANCISCO, CALIFORNIA.

SPACEBAND-CHUTE.

1,064,247.

Specification of Letters Patent.

Patented June 10, 1913.

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To all whom it may concern:

Be it known that I, UMBERTO PIAGNERI, a subject to the King of Italy, residing at the city and county of San Francisco and State of California, have invented new and useful Improvements in Spaceband-Chutes, of which the following is a specification.

This invention relates to linotype machines and more particularly to spaceband chutes thereof.

Linotype machines in operating assemble matrices in an assembler in which they are justified by devices known as spacebands, and when justified and arranged with relation to the molding mechanism during the operation of casting a line of type in the matrices, small particles of type metal adhere to the spacebands at the casting point. Unless this accumulation of type metal is regularly removed from the spacebands, the matrices in the course of time, become damaged by the crushing of the walls when the vise of the machine is locked. Again, by the present construction of spaceband chutes, when a spaceband enters a chute it frequently hammers endwise against a shoulder of the long plate of the chute and is checked long enough to permit its accidental transposition in the assembler.

The present invention comprehends the design and construction and improvement in spaceband chutes, having for its function the preservation of the spaceband, and to prevent its transposition by delaying contact with the spaceband chute and also to automatically remove the accumulation of type metal which will accrue rapidly during casting and which must be removed.

The invention consists in details of reconstruction of the spaceband chute, designed to obviate transposition and the destruction of the edge of the spaceband slide and to accomplish its automatic cleansing.

Figure 1 is a front elevation of the spaceband chute. Fig. 2 is a central vertical section through the same. Fig. 3 is an elevation of the rear of the chute. Fig. 4 is a side view of the spaceband. Fig. 5 is a detail view of the cushioning polisher. Fig. 6 is a transverse section on the line X-X of Fig. 5.

In Fig. 4 is illustrated a spaceband 2, on the slide 3 of which is shown a deposit 4 of type metal, which it is one of the objects of the present invention to remove and keep

from accumulating. The spaceband 2, as is well known, drops endwise from a box, not shown, into the upper end of a spaceband chute, here shown as having a short plate 5 screwed or otherwise connected to sides 6 and 7, spacing the short plate 5 from a long plate 8 sufficiently to permit the spaceband to fall freely through. The long plate 8 is usually formed with a slot or aperture 9 forming a transverse shoulder 10 in the plate 8, and frequently during the fall of spacebands through the channel in the spaceband chute, the lower end of the spaceband impinges on the shoulder 10, causing its transposition by the delay, and in order to prevent this delay by abrupt impingement, I introduce a suitable buffer in the form of a tongue 11, formed with or connected to the long plate 8, so that the upper end of the buffer curves upwardly and slightly outwardly into the slot 9; the curvature of incline of the buffer 11 being sufficient to gradually guide the lower end of the spaceband 2 into the channel of the spaceband chute. By making the buffer 11 slightly yieldable it will operate better than if it were rigid, since the yieldability of the buffer will permit it to give slightly when contacted by the falling spaceband, and then the spaceband will be guided back into the chute. In the present instance the spaceband buffer 11 is shown as forming an upwardly extending yieldable tongue connected with a suitable hanger provided with an angular ear 12 perforated as at 13; the ear being designed to overlap the outer surface of the long plate 8 and be retained by one of the screws 14, which holds the long plate to the sides 6-7.

For the purpose of polishing and removing accumulation of type metal from the spacebands 2, I introduce in the spaceband chute a polishing pad or cushion 15 in the form of a yieldable arm, carrying on its lower springing portion a pad 16 which may be saturated with a suitable polishing substance, and as a spaceband falls through the chute, the face of the slide 3 on which accumulation is likely to occur, slides over the abrasive pad 16 so that the type metal, if any should be adhering, is removed, and since every spaceband must pass through the spaceband chute for each use, it will be seen that the possibility of type metal accumulation is avoided.

To further steady the spaceband falling

through the chute, and to increase the friction of a spaceband upon the abrading pad 16, I provide a yieldable controlling leaf, tongue or finger 17, formed with or attached to the short plate 5 of the spaceband chute, the lower end of the finger or fingers 17 being preferably resilient and projecting toward the long plate 8; the lower portion of the fingers 17 being somewhat lower than the spring buffer 11 on the long plate 8. The function of the spring controlling fingers 17 is to steady the falling spaceband after it has engaged the buffer 11 and continues its movement slightly springing the finger 17 outwardly; the resistance of these being sufficient to press the spaceband with the required degree of force against the abrasive 16 on the yielding cushion or arm 15, which projects downwardly in the channel of the spaceband chute, and as the spaceband slide 3 traverses the abrasive 16 any accumulation thereon will be effectually removed.

By arranging the spring fingers 17 so that their ends are intermediate the buffer 11 and the cushioning abrasive 16, a three-point bearing is obtained and effective upon the spaceband while this is traversing the springing members 11, 17, and 16. However, it is understood that the combined pressure or resistance of the cushions and buffers is not sufficient to effect the speed of operation of the linotype machine; the whole function of the combined buffers and cushions being simply, first, to prevent transposition of the spaceband resulting from checking impingement in the chute, and secondly, to provide means for polishing the spaceband and keep type metal from accumulating thereon.

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

1. In a linotype machine, in combination with a chute for spacebands having a slotted long plate, an oblique buffer on the back or long plate of the chute to prevent the spacebands from transposing by delay in the chute, and a polishing pad suspended in the chute below and by the buffer and projecting into the path of the spaceband.

2. In a linotype machine, in combination with a chute for spacebands having a long plate, an oblique buffer on the long plate of the chute to prevent the spacebands from transposing, a polishing pad below said buffer on the chute, and a resilient controlling device opposed to the pad whereby the spacebands are deflected against the polishing device.

3. In a linotype machine, a longitudinally slotted vertically disposed spaceband guide-chute, with the lower wall of the slot beveled upwardly and outwardly so that the spaceband in dropping through the chute will not be transposed when assembled, due to checking engagement with the end of said slot, a yieldable deflector on the chute opposed to and lower than said beveled wall, and a yieldable polisher for spacebands, said deflector cooperating with the polisher to steady a spaceband traversing the chute.

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

UMBERTO PIAGNERI

Witnesses:

JOHN H. HERRING,
GENEVIEVE S. DONELIN.