

Extract of Des Jardins
Justifier Pages

History of Composing Machines

A COMPLETE RECORD OF THE ART
OF COMPOSING TYPE BY MACHINERY

Fully Illustrated

ALSO

LISTS OF PATENTS

ON COMPOSING MACHINES, AMERICAN AND BRITISH,
CHRONOLOGICALLY ARRANGED

BY

JOHN S. THOMPSON

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invented by James E. Munson, of New York, in 1882. His plan was to separate the perforations from each other by distances proportioned to the thickness of the characters represented, and, after the proofreader had noted the corrections necessary and the operator had made such corrections in the tape by eliminating or making additional perforations, a scale was used to determine what size of spaces would justify the line, the operator then perforating the tape between the words with the proper signs. This corrected ribbon was then used as copy to prepare a perfect ribbon which, when fed through the composing apparatus, controlled the selection of the proper type and justifying spaces. In this apparatus feelers dropped into the holes in the tape as it was unreeled and established electrical connections which caused the ejection and assembling of justified lines of type.

CALCULATING MECHANISMS.

B. M. Des Jardines brought out his automatic justifier in 1887. In this machine the line is assembled with brass separators between the words. Each time the space key is struck it is recorded, and the line when completed is measured and a computing device calculates the proper combination of spaces necessary to do the justifying. The line is then moved forward, and the first word pushed down into a movable channel, the brass separator preventing more than the first word entering. This word is then run backward to the space channels, and a type space of proper size is released and pressed downward and takes the place of the temporary

separator. The word and space are now advanced and the second word pressed down, both moving backward to receive the next space, and this is continued until the whole line has received the proper justifying spaces.

The justification scheme employed in the Paige Compositor of 1893 was based on the measurements taken of each word as composed, the recording of these measurements by a mechanical device, and the insertion of spaces between the words to exactly fill the measure. Eleven different sizes of spaces were used in justifying.

The Dow process of justification of 1893 involved the measuring of the composed line, word by word, and a calculating mechanism to divide the shortage by the number of spaces needed between words and the insertion of the proper size of spaces from a space magazine. If required, the mechanism would insert spaces of varying thickness in any line. F. B. Converse's justifier of 1901 was based on a similar proposition, though the mechanism varied.

Temporary word separators were employed by W. J. Ennison and W. H. Honiss in their justifier, invented in 1896. These separators projected beyond the type line and caused a calculating device to record each one as the line containing them passed the counter, the device then, by performing addition and division, replacing the temporary spaces with those of proper thickness to justify the line. Four sizes of spaces were used.