into box " a," the " b's " into box " b," and so on? Let us take the simplest case possible, and suppose that the " a's " have an ear at each upper end, by which they ride on a rail along which they are impelled by a rapid screw. Let that rail end just above the " a " box, and all the " a's " will drop into that box. But in a linotype there are 90 characters, and it is impossible to give each a pair of rails to itself. What then? Suppose you give the " b's " two pairs of ears, one pair above the other, with four rails for them to ride upon. The " b's " will fall only at a place where both pairs of rails come to an end, and at that point they will find the " b " box. Each matrix in the whole array of 90 is thus provided with ears peculiar to itself,

TWO WEDGES IN CONTACT, THEIR OUTER SIDES PARALLEL

and with a box into which it drops when those ears find their rails interrupted.

Justification, every whit as difficult as distribution, was accomplished by Mergenthaler in his step-by-step wedges. These were forced between each pair of words until a line, effectually tightened, was cast. The spacers patented by Jacob William Schuckers, in 1885, are a preferable because a continuous device. He placed two long thin wedges together so that their boundaries were parallel. When such pairs of wedges are driven into a line as far as they will go, perfect justification is the result. In its original form, dating from the dawn of human wit, a wedge has had boundaries inclined to each other. There was long ago a heightening of the value of wedges by using them in pairs, the sharp edge of one wedge being laid against the thick