

number of ems in a piece of work, yet, to the uninitiated, it would act as the corrector of the mystification conveyed by "ems." I have never known *measurement* to be considered in this view, and it is not improbable that this subject has not been hitherto presented in a manner even involving this principle. Further, in the matter of *interchangeability*, a result appreciating to exactness cannot be attained by any other method.

I have been privileged to read but little on this point, but of that little the preponderance of judgment inclined to the positive declaration that interchangeability, in all its ramifications, cannot be determined with any degree of certainty. I maintain the affirmative of the proposition, and ere I conclude will endeavor to demonstrate the reliability of the structure I have finally erected, though its foundation was not satisfactorily laid until the obstructions caused by the ruins of many a fallen temple were cleared from the field of operation.

As 1 em pica is to a superficial inch (6), so a superficial inch of pica is to a square inch (6x6). This rule, of course, applies to all bodies; hence,

TABLE O,

*Showing the number of ems in one square inch.*

	Ems.
Pica.....	36
Small Pica.....	46 $\frac{2}{3}$
Long Primer.....	55 $\frac{2}{3}$
Bourgeois.....	72 $\frac{1}{2}$
Brevier.....	81
Minion.....	96 $\frac{2}{3}$
Nonpareil.....	144
Agate.....	186 $\frac{1}{2}$
Pearl.....	220 $\frac{1}{2}$
Diamond.....	289

Any one of ordinary intelligence can readily understand if one square inch or a multiple thereof costs a stipulated price, that the work to be measured will cost as many times as much as one square inch or the multiple is contained therein; whereas, being governed by the information that there are a given number of ems in a *line*, it not infrequently happens that disputes arise concerning the number of lines there should be in a *page*, and many consider themselves swindled outright when they learn that the space taken up by leads, etc., is charged at the same rate as print.

This reminds me to give a simple and

accurate method of computing leads, and to this end will submit

TABLE X,

*Showing the proportions of leads to bodies.*

	4 to Pica.	5 to Pica.	6 to Pica.	8 to Pica.
Pica,.....	$\frac{1}{4}$	$\frac{1}{5}$	$\frac{1}{6}$	$\frac{1}{8}$
Small Pica,.....	$\frac{1}{11}$	$\frac{1}{13}$	$\frac{1}{16}$	$\frac{1}{23}$
Long Primer,.....	$\frac{9}{32}$	$\frac{9}{40}$	$\frac{3}{16}$	$\frac{9}{64}$
Bourgeois,.....	$\frac{1}{8}$	$\frac{1}{10}$	$\frac{1}{12}$	$\frac{1}{16}$
Brevier,.....	$\frac{3}{8}$	$\frac{1}{5}$	$\frac{1}{6}$	$\frac{1}{8}$
Minion,.....	$\frac{1}{12}$	$\frac{1}{15}$	$\frac{1}{20}$	$\frac{1}{30}$
Nonpareil,.....	$\frac{1}{2}$	$\frac{2}{5}$	$\frac{1}{3}$	$\frac{1}{4}$
Agate,.....	$\frac{1}{2}$	$\frac{1}{3}$	$\frac{1}{4}$	$\frac{1}{6}$
Pearl,.....	$\frac{1}{10}$	$\frac{1}{12}$	$\frac{1}{15}$	$\frac{1}{20}$
Diamond,.....	$\frac{1}{4}$	$\frac{1}{5}$	$\frac{1}{6}$	$\frac{1}{8}$

The above will be found valuable in determining the increase over solid in any *body*—thus, 100 pages of solid brevier, if spread with 6-to-pica leads, will make

$$\begin{array}{r} 4)100 \\ \underline{40} \\ 60 \end{array}$$

125 pages.

But to determine with certainty the number of pages *leaded* will make of *solid*, it is proper to have

TABLE XX,

*Showing the increase caused by leads.*

	4 to Pica.	5 to Pica.	6 to Pica.	8 to Pica.
Pica,.....	$\frac{1}{4}$	$\frac{1}{5}$	$\frac{1}{6}$	$\frac{1}{8}$
Small Pica.....	$\frac{1}{11}$	$\frac{1}{13}$	$\frac{1}{16}$	$\frac{1}{23}$
Long Primer,.....	$\frac{9}{32}$	$\frac{9}{40}$	$\frac{3}{16}$	$\frac{9}{64}$
Bourgeois,.....	$\frac{1}{8}$	$\frac{1}{10}$	$\frac{1}{12}$	$\frac{1}{16}$
Brevier,.....	$\frac{3}{8}$	$\frac{1}{5}$	$\frac{1}{6}$	$\frac{1}{8}$
Minion,.....	$\frac{1}{12}$	$\frac{1}{15}$	$\frac{1}{20}$	$\frac{1}{30}$
Nonpareil,.....	$\frac{1}{2}$	$\frac{2}{5}$	$\frac{1}{3}$	$\frac{1}{4}$
Agate,.....	$\frac{1}{2}$	$\frac{1}{3}$	$\frac{1}{4}$	$\frac{1}{6}$
Pearl,.....	$\frac{1}{10}$	$\frac{1}{12}$	$\frac{1}{15}$	$\frac{1}{20}$
Diamond,.....	$\frac{1}{4}$	$\frac{1}{5}$	$\frac{1}{6}$	$\frac{1}{8}$