CHAPTER XII.

Composition–Division of Words–Emptying the Stick–How to become a Good Compositor–Habits to be Acquired; Habits to be Avoided.

The two preceding chapters were intended to instruct the young compositor in the method of setting up a display line and a common paragraph. If he has thoroughly understood them, and reduced them to practice, he will now at least be able to undertake any kind of ordinary composition. We intend presently to give full instructions for each variety of the more complicated work that he will encounter; but, in the meantime, we may claim to have already initiated him into the rudiments of the art of type-setting.

Division of Words.—One of the first difficulties encountered by the young compositor consists in the necessity of dividing words which will not completely come into the line. Part of a word, perhaps, requires to stand at the end of a line with a hyphen after it, and part at the beginning of the following line. It would not do, for the purpose of completing the line, to use just as many letters as would fill it up, for there is a series of regulations on the subject (called Syllabication) which must be followed. The early printers avoided much trouble of this kind, for they either divided a word arbitrarily, or contracted some of the other words; indeed, the oldest books have lines of irregular lengths. We dare not do this at the present day, just the question then arises. Upon what principle are words to be divided? Many writers have treated this subject at great length, and two different schools have arisen, founding their systems on etymology and pronunciation respectively, and presenting a long array of rules (and a corresponding quantity of exceptions) for the guidance of printers and writers. The present treatise aiming chiefly at being practical, any considerable space devoted to orthographical and etymological discussions would be altogether misapplied. All that falls within our province is to state plainly a few useful directions which will exemplify the principles upon which rests the art of

dividing words.

Our first advice, however, to those about to divide would be simply "Don't." If you can prevent it by altering the spacing, do so; but the spacing should not be glaringly different to that of preceding and following lines.

If divisions are absolutely necessary, let them be as few as possible, and these few as carefully and correctly made as you are able.

Two successive lines ending with a divided word are unsightly, but three should never be permitted, except in very narrow measures. A divided word should never end a page.

A division that leaves but one letter at the end of a line or at the beginning of another is not permissible.

Subject to these reservations, words may be divided thus:----

First.—A consonant between two vowels belongs to the latter syllable.

Second.—If there are two consonants together, one goes to the first syllable and the other to the following one; unless they form part of one sound, when they must not be divided.

Third.—You may divide a prefix from a word or an affix, providing the root is left entire.

There are exceptions to these rules, many more, in fact, than there ought to be, owing to the pedantry of some authors and correctors of the press; but for most practical purposes they will be sufficient.³¹

Emptying the Composing Stick.—A little before his stick is completely full of lines of type, the compositor must empty it. This is a rather delicate operation, and one that always troubles young compositors. If it be not properly done, the matter will probably be squabbled, or fall into pie. Set up a galley on the frame on your left hand. The head should be towards you, and the side with the bevel against the lower ledge of the case. This is done, of course, that the types may be supported, when on the

³¹ A number of useful rules on this subject will be found in Southward's "Dictionary of Typography" and Ed., pp. 25, 36.

slope, by the head and lower side of the galley.

Now set down the composing stick on the lower case in such a manner that the lines may run at a right angle to the front of the lower case. Place the setting rule in front of the last line, and a lead of the same measure as the stick behind the first line. Experienced compositors need not use the lead, but beginners should, for safety, always avail themselves of its protection. Raise the two hands, and partially close them by bringing the tips of the fingers within about an inch of the palms. Open the thumbs and first fingers a little, preserving the other fingers in the same position. Press the two bent second fingers against the right and left side of the type respectively, and clutch it at top and bottom between the first fingers and thumbs. You will find that you have a firm hold of the type, which will be supported on all sides. Raise it up gradually, but without hesitation, disengaging the stick by thrusting it away with the little fingers of the left hand. As soon as possible, turn the mass of type in such a manner that the lines may be on the top of one another, that is, all rest-upon the first line, secured by the lead. Bring the whole to the galley, retaining your tight hold of it all the time, and then place it on the galley against the head and sides. If this be done carefully, not a single letter will have dropped out. It is a good plan to practise by lifting out, first one line, then two, then three, and so on until the whole stickful can be lifted out with confidence.

After a little practice, the top lead may be dispensed with, but then the matter should be turned the other way, so as to rest upon the bottom line and the rule.

Place the letter on the galley, or "drop it," to use the technical term, as close to the head as possible, and then push it right up. A lead and a quadrat or quotation may be put at the foot of it to protect the bottom line.

The difficulty of emptying the stick will be materially increased if the lines have been set too tightly. On the other hand, if they have been set too loosely there will be also great difficulty in emptying the matter, as some of it will be likely to drop out. In either case the importance of careful setting and proper justification will have been manifested.

It is a good plan for the young compositor to read over each line in his stick before he commences a new one, and to correct any error which he perceives he has made. This may be conveniently done while justifying the line. Many compositors read over their matter on the completion of every stickful, believing that to do so is a safe and economic practice, saving much time in correcting after a proof has been pulled. Others dispense with this reading in the stick altogether. We need not here enter into the discussion as to which is the preferable course, but we lean decidedly to the plan of reading in the stick; it saves, at least, much time to the corrector or proof reader.

We will conclude this part of our subject by advising the young compositor to do his work carefully, deliberately, and thoughtfully. It is the most profitable plan in the long run, and from the beginning is the most pleasant and satisfactory.

In order to follow up the directions that have been given, it will be necessary to practise diligently. Nothing but this will impart dexterity; all the technical instruction in the world will be useless without it. Just as a person cannot acquire the art of swimming from attending to the instructions of a master and without going into the water, the compositor cannot learn his trade by simply reading the directions of a handbook, however explicit and practical it may be.

There is one important matter we would impress upon the reader at the outset, and that is to aim at *good* work, rather than much work. Let him pay attention to accuracy, and expedition will come of itself. Now, in order that he may begin in the right way to become a good and really competent artisan, we would point out that there are, first, certain Habits to be Acquired, and, secondly, certain Habits to be Avoided. We will not enlarge upon the subject of habits generally, nor show how early bad ones are learned, and with how much difficulty they are broken off. In this respect all habits are alike, and what applies to the others applies with especial force to the business of composition. A bad habit, arising from silly affectation, servile imitation, or even from indolence, at the commencement of his practice, sometimes requires years of irksome restraint to be overcome, and frequently is never overcome at all, and the character of the man and his work are alike rendered indifferent.

Habits to be Acquired.—First and foremost, a quiet and thoughtful manner. In the printing office it is due to your neighbours that you should be quiet; it is due to yourself that you should be thoughtful. Composition exercises the mind as well as the body, for while you are picking up the types you must read and spell the words which they form. This cannot be done properly while you are either talking or thinking of something else; hence silence at work is one of the first rules of a wellconducted printing office. "A still tongue makes a full stick."

Second.—A good position. Something has been said on this point already, but it cannot be too pointedly enjoined on the beginner, for the inevitable result of inattention to the direction to stand upright will be the impairment of his health. Let the compositor consider that perhaps a fourth of his life may be spent in one attitude, and then he may realize how important it is that that attitude should be the proper one.

Third.—Select every type before you pick it up. The types in the boxes will be found to be in all possible positions, but before you extend your hand to take one out, look at it, and note how it lies. Then, by the finger and thumb, and in the course of its passage between the box and the stick, turn it so that you may drop it in its proper position into the destined place for it.

Fourth.—Put each type quietly into the stick, with the simplest motion possible. The wrist should be brought into play in doing this; the elbow should not be bent at all for the purpose.

Fifth.—While putting the letter into the stick, look out for the next; the thumb of the left hand, meanwhile, keeping the letter upright in the composing stick.

Sixth.-Let the left hand, containing the composing stick,

follow the right hand, engaged in picking up the types. We do not mean that the left hand should traverse the case literally from the l box on one side to the em quad box on the other, or vertically from the top boxes of the upper-case to the lowermost of the lower-case, but in a direction backwards and forwards over the latter, so as to save the largest amount of travel for the right hand. If this point be kept in mind, the meaning of our direction will soon be understood, and its great utility recognized.

Bad Habits to be Avoided.—Every movement of the hands or other part of the body that does not directly facilitate the process of composing should be shunned as needlessly wearying to the system, and consequently lessening its productive power. Such are, bending the body, setting the legs apart, and needlessly inflecting the elbow. Some compositors make a bow to their cases every time they extract a type; others contract a habit of dipping the hand containing the type on its way to the stick. Such habits are as wasteful of time, and unnecessary fatiguing to the body, as they are ludicrous, and at once indicate defective training, or indolence and affectation. Specifically, the bad habits of compositors are:—

First.—Clicking the letter on the side of the stick, once or twice, before putting it into its place. This is sometimes done by boys in order to make it appear that they are doing more work than they are really capable of, and they thus get into a bad habit that never, perhaps, leaves them.

Second.—Making two attempts to pick up the letter out of the case. In an article on the secrets of fast typesetting, in an American journal, the following sensible remarks appeared on this point:—"A determination not to make any false motions, however fruitless it may at first appear, will in a day or a week visibly increase the number of ems set; that is, by sighting the nick before the hand goes out to pick up the type, so that when it is taken up by the thumb and forefinger there need be no necessity for turning it round to see where the nick is, the arm meanwhile making a false or lost motion that would have sufficed

to bring another type into the stick. These false motions not only consume time, but become chronic, and increase in number and intensity, so that some men fairly shake themselves to pieces, and only set perhaps five or six hundred ems an hour. We have known men who acquired this nervous, jerky style in setting type, and making two or three motions for every type secured, almost entirely rid themselves of the superfluous shakes by adopting a slow and measured style, apparently unrenumerative at first, but which gradually quickened into systematic speed. We therefore consider an avoidance of false motions essential to fast type setting."³²

Third.—Do not look at your copy too long or too often. Endeavour to take away from it in the memory just as much as can be retained until all the types that compose it are set up. The more, of course, the better; but any uncertainty, necessitating another examination of the copy, is a loss of time.

Fourth.—Do not use a guide to indicate the place in the copy at which you are working. If you look at any picture of a mediaeval compositor, you will find on his upper-case an apparatus called a *visorum*, extended over the copy. Its use was thus described in Moxon's "Mechanick Exercises" (1683): "Pricking the point of the visorum, most commonly upon the border or frame of the upper case, on the left hand, compositors fold the leaf of copy they compose by so as the bottom of it may

³² Houghton ("Printers' Every Day Book") writing about thirty years ago enlarged upon this idea as follows:—"Let the time of picking up a letter be-equal to the time of counting two, and bringing it to the stick equal to one, counted at the same rate. If a compositor would extend his hand as if composing, and hold it so while he counts two, and again bring it back in the time he could count one, the movement that I would explain and recommend as the best to secure lifting up every type would, perhaps, be better understood. Thus it will be seen, that to avoid missing any type when the attempt is made to pick it up, considerably the largest portion of the time of composing is occupied in securing it. It is immaterial at what rate the movement be tested, it will be the same relatively. This method of composing, once acquired, will doubly compensate for the trouble of learning it."

rest upon the square shoulder near the bottom of the visorum; then, with two pieces of scaleboard tied together at one end, they clasp both the copy and visorum between these two scaleboards, which pinch the copy and visorum tight enough to keep the copy in its place, and at the same time also serve as an index to direct the eve to every line as the compositor moves it downward." Some modem compositors have a piece of rule or lead balanced by a light cord, to which a type or quotation is attached as a weight, and lay it upon the copy on the uppercase to assist them in "keeping the place." This guide, however, is in reality a drawback rather than an aid. The American journal referred to says:---"A peculiarity of most fast printers is their quickness of sight, enabling them to see from the comer of their eves as well as directly in front of them. This readiness of sight is diminished rather than cultivated by keeping the eye strained continually on a point directly in front; and the time supposed to be gained in always having the place is more than counterbalanced by the time spent in arranging the guide. Besides, the effort to remember the place where he left off compels a man to carry in his head the sense of what he is setting, resulting in well-punctuated, intelligent work. We cannot, at present, recall a fast printer addicted to the use of a guide, while the very slow ones invariably use them."

The foregoing remarks have reference to the attainment of manual dexterity, but to constitute a good compositor, certain mental acquirements are indispensable. He should not only possess intelligence, but a reasonable amount of general knowledge, as well as some amount of good taste. He should be able to read his copy, especially if manuscript, with readiness, and to understand its meaning, in order to punctuate it properly. He should also be able to spell properly, as some copy is, in regard to the letters, almost undecipherable, while other copy is incorrectly spelled. An acquaintance with the contents of the current newspapers is very desirable, especially for the spelling of proper names. *General Hints.*—The quadrats and spaces must be rigorously kept from pie. A convenient receptacle for worn-out or damaged letters, broken spaces, &c., is an old shoe, the upper part being cut away so as to leave the toe as a bag. It may be tacked against a wall or at the side of the frame.

The composing stick must be kept clean and bright; rust and dirt prevent proper justification.