

Memorandum

*On preparing designs for Monotype faces
so as to prevent arbitrary encroachments from the side of the drawing office
on the designer's work and intentions and otherwise inevitable
disappointments at the designer's end*

JAN VAN KRIMPEN

EVER SINCE THE BEGINNING of my co-operation with the Monotype Works on the production of certain type faces, which has been early in 1928 when a rendering of foundry Lutetia was taken in hand, I have admired a number of the Corporation's achievements and, at the same time, not felt fully satisfied with what we had been able to perform together. When we started our co-operation I had but vague

notions about the Monotype system and, astonishing as it may sound now, I was of opinion that the system was and should be the Corporation's concern while mine could only be the making of designs as good as I should be able to do. It now seems obvious to me that my error was that I only thought of foundry type and that I disregarded the additional limitations the Monotype system and Monotype machine involve. And, on top of that, my idea, rightly or wrongly, was that foundry type was the real thing and, therefore, that bringing composing machine type nearer to foundry type would mean improving the former; only many years later I have formed the opinion that, at least, they can be two fundamentally different things and that they should be thought of and treated as such. Another point that in those days had not yet come into my reasoning was the difference between hand- and mechanically cut punches. One may still think, as I for one do, that the best hand-cut punches are superior to any machine-cut ones; but one has to realise and to admit that as soon as a composing machine is accepted hand-cut punches are no longer possible.

I have, at the request of Mr Morison, a few years before the war written a short memorandum on the same subject I am dealing with now. It seems to have disappeared. If it has I can only be glad for it. And I have to ask that if it



should turn up again it should be disregarded. My aim was then to narrow, or if possible close, the gap between foundry type (then still not seldom made by means of hand-cut punches) and Monotype type. Now, when talking of the latter, I want completely to forget hand-cut punches and designs in which only the age old limitations of foundry type are taken into account.

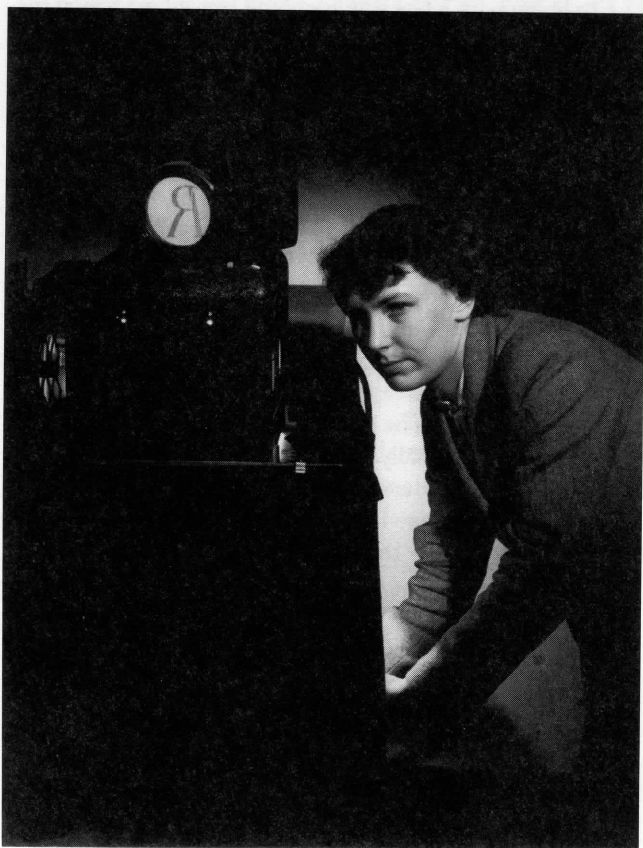
At present it is my aim to point out how, in my opinion, a Monotype face can and should be made within the limitations of the Monotype system itself; and that such a face can, again within these limitations, be quite as good as a foundry face provided that the characteristics of mechanically-cut punches, in as far as they differ from those of hand-cut punches, are accepted.

To begin with a few things should be said regarding the reasons for my far from entirely being satisfied by the joint performances of the Monotype and myself. They are partly due to certain human shortcomings, which it may or may not be possible to remedy, to which I will revert later on; and for another part not so much to the Monotype system itself but rather to too easily found and followed practical ways of applying the system to, both, existing type faces and designs not in some other way executed before. If I have formerly devised means to improve the attempts of the Corporation to copy existing faces—in the first place my own on which we have been working together—I have now found that this is essentially a hopeless enterprise. What can be done is, with the help of the designer if he is available, make a Monotype version after what originally has been a face produced by a type foundry which is, at the very least, unlikely to have taken the Monotype limitations—if only the limited number of possible widths imposed by the system of unit arrangements into

account. Now, contrary to before the war, it is my firm belief that no better Monotype face can be produced than after a design, and drawings, made specially for the purpose along the lines I will set forth presently. If, for some reason or other, an already existing face has to be adapted for use on the Monotype this will have to be done largely along the same lines. In most cases severe modifications will prove to be necessary; and people will have to prepare themselves on finding that the Monotype version does not have overmuch to do with the original fount.

Before I proceed to dealing with my subject properly speaking I want to say a few words on so-called copies of historical type faces which the corporation has produced in considerable numbers.

I need hardly say here once more that I am no friend of copying or even adapting historical type faces. Not, may this be well understood, because I should see, not to say fear, in them competitors of designs of our own day; but for no other reason than that they are neither flesh nor fish: they are not, nor can they be, the thing they pretend to be; they only have a mock flavour of antiquity because of the many violations of the nature of the machine – the punch-cutting machine, that is, in this instance – and the many concessions made to the limitations of the Monotype composing machine; all of these violations and concessions being unavoidable in the process of making them fit for modern use. And, on the other hand, they are not actually products of our time because of the mock flavour of antiquity that has to be aimed at and retained or there could not be spoken of copies or adaptations; nor could they be named, as it is done, after their models. I will not further deal with them and only say that if what I have to suggest might prove to be useful for the future



production of similar type faces, which I doubt, I should almost be sorry to have at all written this memorandum. What I am after in the first place is a system to get the best possible machine made face, for use on a certain composing machine (Monotype), and this system must tend to shake the producers of such a face free from the tyranny of their model in type, if such a model there is, in order to get a machine made machine face that is closely enough related to the model to be virtually identical with it and, at the same time, an independent face that answers completely the requirements of the machine. In the second place, and I think most important of all, I want to set forth how a designer and the works' drawing office can and should co-operate in producing a set of satisfactory drawings for a type face that has no model in type; in other words a type face that entirely originates with the Monotype though possibly according to the ideas of a designer who is not directly connected with it. In many respects the methods to be followed will be found to be nearly identical.

I have repeatedly professed the highest possible regard and admiration for Mr Morison's achievements, now during nearly thirty-five years, as a producer of type faces – if I am allowed to call him thus – and I want to repeat them here once more. But still I differ with him and certain of his convictions so fundamentally that it seems to me that what, in *A Tally of Types*, he relates to have been 'the convictions with which the Monotype Corporation's new programme was drafted in January 1922' may well have led, unintentionally, to a number of the errors I am now trying to remedy.

On page 21 he says 'The way to learn to go forward was to make a step backward'. This is put as an axiom and no attempt to give a proof or a justification is made. On the one hand I should like to say to this that, particularly in Great Britain, so many steps backward had already been made, by William Morris and his disciples, that I take the liberty to doubt whether any more of such steps were really necessary. On the other hand, though quite as convinced of the use and necessity to study the past as Mr Morison, that this conviction does not in the least mean to me that our investigations should lead us to a more or less slavishly copying or following the productions of the past.

The errors I have hinted at are caused by the type drawing office having been taught to copy the models they get – historical type faces or, in fact, prints from them – as closely as possible in order to make it, as Mr Morison says on page 38 of *A Tally of Types*, 'possible, in fact, to compose, according to the correct dimensions of the original, a page of the Monotype version [of Poliphilus], place it side by side with the original, and find no difference except in paper. This test was in fact made, and, naturally, it gave the greatest satisfaction to the works'. If this should be entirely true, which in my opinion it is certainly not, still an objection, and a very

— Projecting designer's type drawing to 10 inches.



— The type drawing office in 1951; drawing left, charting right.

serious one, could, and would have to, be raised. I have called these pretending copies of ancient type faces neither flesh nor fish. And in no instance they would be more fundamentally such bastards as in this. Not only that they pretend to be, or are hoped to look, old while in fact they are new; but over and above this ambiguity they are given a look of being handiwork, in as much they follow painstakingly the engraver's and even the typefounder's irregularities — of the one due to his using by hand simple tools under a none too strong magnifying glass and of the other due to his hand mould — while, in fact, they are made by machine. And this I do not hesitate to call — but may it be well understood: philosophically speaking — dishonesty. No talk about 'the man behind the machine' is able to disguise this fact. The dishonesty may not be intentional; and I am sure that here it is not; but dishonesty there is and remains.

I should be very surprised if anybody of those who are daily trying to imitate hand-cut type by mechanical means

would be prepared to accept, say, a frying pan with so-called hammer marks if the hammer marks came out of a mould and the pan were forced on some machine. Why do people here notice and reject the obvious dishonesty and in the other instance, where it is quite as obvious, accept and submit to it?

The fundamental error, of imitating hand-cut type by mechanical means, has not stopped at the producing or rendering of ancient type faces. I will mention here two series with which, in slightly different ways, the same sins have been committed.

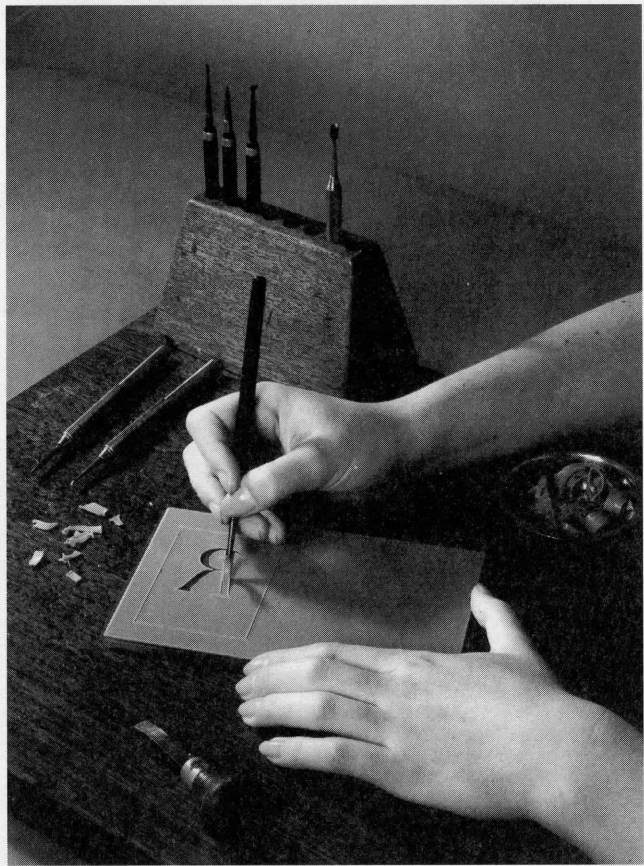
It just seems rightful to begin with my own (Monotype) Lutetia. I think it was early in 1928 when the late W.I. Burch and Mr Morison suggested that my (foundry) Lutetia should be copied for use on the Monotype machine. I doubted, though I very much admired and was impressed by the Monotype achievements and the Monotype ways of working which had been extensively shown to me, that the Corpora-

tion would be able to produce a rendering of Lutetia that might satisfy me; and I said so. This was taken as a challenge and W.I. Burch said to me that, if I would only take into account the Monotype limitations regarding bevel and width, he was prepared to give me the right of disapproving anything that I might think not to be fully satisfactory. This counter-challenge was accepted by me and the work started.

I knew, in those days, something of cutting type by hand; but there could hardly be spoken of real and full understanding which only can be the fruit of a long practice and much thinking. I knew next to nothing of cutting punches by machine; and if, already then, I should have condemned and refused the 'hand made' frying pan produced by machine it had not yet occurred to me that hand-cut type imitated by mechanical means was quite as objectionable because of its equal dishonesty. And if I knew in my heart of hearts that what had been done with Poliphilus, and which gave 'the greatest satisfaction to the works', was wrong, and should therefore not have been done, I had not yet formulated in my mind *why* it was wrong. It was exactly on that greatest satisfaction to the works that the Corporation's counter-challenge could be and was based. The Corporation have won; and Monotype Lutetia, as a consequence, is one more unsatisfactory machine made type face because it is only one more imitation of a fount typically made by hand.

(When, not long afterwards, work on the series Romulus started my understanding of this side of the job had in so far developed that I could at least prevent that the same mistake should be made. I then had, otherwise than a few years a fair understanding of the Monotype unit system; but I had not yet conceived the idea that not the unit system should be applied to a given design but, rather, that a rudimentary design should be gradually adapted to the unit system.)

The other series I am thinking of is Mr Bruce Rogers'



— Removing wax from character after pantographic 'cutting'.

Centaur. Here too a fount of foundry type has been the original model after which the Corporation was supposed to work; not a more [redrawn] design was accepted after which it was undertaken to produce matrices to be used on Monotype machines. If I am right Mr Rogers resided in London when Centaur was being cut—I met him there, in those days, several times in his room in Sir Emery Walker's office in Cliffords Inn—and so had an opportunity of much more closely supervising the production of Centaur than I had with Lutetia; and, to be sure, he did so. (I have learned from a paper which Mrs Warde has read on Mr Bruce Rogers, at St Bride's Foundation in the autumn of 1955, that Mr Rogers was by far the most difficult designer the works had ever had to deal with 'until', she added when she realised that I was in her audience, 'until, of course, Mr Van Krimpen turned up'. I should like to say to this, firstly, that if we, Mr Rogers and myself, have reason, regarding this remark of Mrs Warde's, for anything it is a feeling of pride for having taken the matter more seriously than other designers had or have done; and, secondly, that there can be little reason for Mrs Warde



— The final type drawing.

MEMORANDUM

to insert the word 'until' since the two founts were produced at about the same time – the series number of Centaur being 252 and that of Lutetia 255 – or she must have been thinking of Romulus during the cutting of which I have certainly been more difficult than on the former occasion.)

D.B. Updike, in a passage in *Printing Types* on the production of type faces, starting on page 10 of the first volume, quotes from a letter from Mr Rogers to him: 'Even with strict instructions and with best intentions it is difficult for the habitual user of a very accurate machine *not* to insensibly smooth out what he has always been taught to be "imperfections" and to make as mechanically perfect a letter as is possible.... I have come to believe that perhaps only hand-cut punches, *cut by the designer of the type*, can preserve the real feeling of the design.' I have wanted to give Updike's quotation from Mr Rogers' letter in full. I do not agree with his last point, in as far as hand-cut punches are concerned, but it would be beyond the scope of this memorandum to expatiate on my reasons for it.

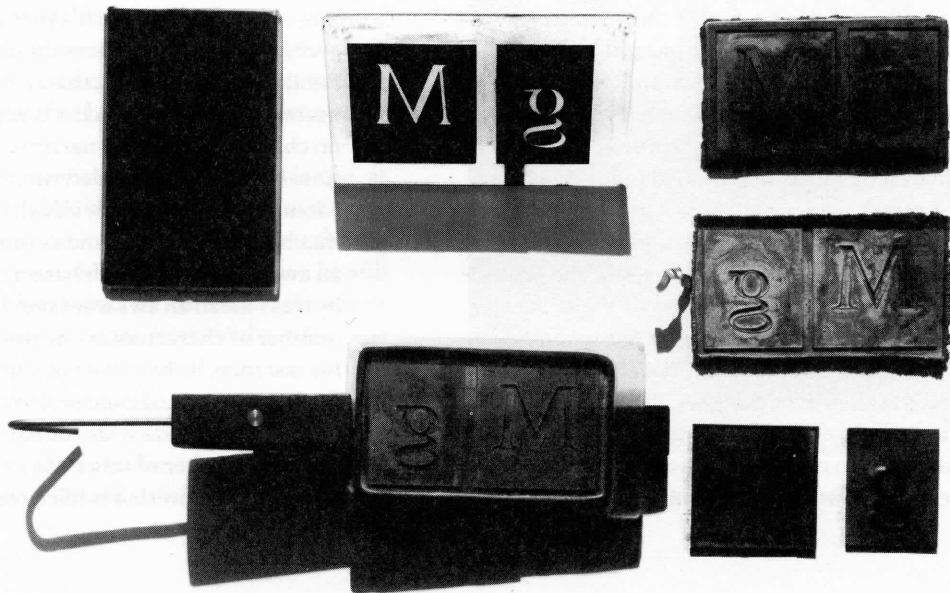
My first reaction when reading this passage is that it reveals a surprising and queer enough attitude with one who gives a design of his for use on a composing machine; a composing machine, at that, which can only properly be worked with matrices driven from punches that have been cut mechanically. As, however, Updike's book is nearly ten years older than Monotype Centaur it is possible enough that Mr Rogers had changed his mind in the meantime. On the other hand Monotype Centaur does not look as though this should have happened.

I even think that Mr Rogers has, undoubtedly 'with best intentions' – so without as much as dreaming that he might

be doing something he should rather not do –, given 'strict instructions' for the introduction of 'imperfections' or irregularities in the cutting of his design in order to have the printed type look closely like type cut by hand; this should, I think, be taken for an objectionably arbitrary piece of conduct [given] the size of the drawings and the great flexibility of the punch-cutting machine; a cheap proceeding of arbitrarily determining one's own chosen 'imperfections' while, when punches are being cut by hand, one has to wait and see how the punchcutter's genuine imperfections will look whether he be his own punchcutter or working with another man. In Lutetia the punchcutter's imperfections have, as far as it went, slavishly been copied. What exactly has happened with Monotype Centaur I am unable to say; I understand, however, (from *The Centaur Types* by Bruce Rogers, Chicago, October House, 1949) that Centaur has never really been cut by hand but, originally, by Robert Wiebking of Chicago 'on his machines', the working drawings reproduced in the little book mentioned clearly show[ing] that Mr Rogers does not have what I would call the right ideas of what should or should not be asked from a machine. So, reasoning further from my point of view, I may say, or even have to say, that what has happened, in different ways, to both Centaur and Lutetia, in the course of their production by the Corporation, is wrong and therefore objectionable. These and similar methods, caused by a certain lack of understanding, have, in their turn, caused a lot of wrong to be done indeed. And still they are the least of my troubles since one simple decree can stop their being followed any longer.

The methods I am going to suggest for the production of a fount that is to have its origin on the Monotype can *mutatis*

— Stages of pattern manufacture.



mutandis be applied to the re-production or adaptation of one that is already in existence. That is to say that I think it may be found to be most simple and efficacious to start from the design, if it is still there, or, if it is not, to replace it by an enlargement of a rough impression from the (foundry) type or a reduction of the first drawings the drawing office normally makes in similar cases. My main points are

1. that a (*rudimentary*) design should be adapted to the unit system and
2. how, in my opinion, this can and should be done.

Some designers – I am thinking of Dr Giovanni Mardersteig and myself – have tried to adapt, sometime, a design to an existing unit arrangement and have failed in as much as neither of us has finally been able to get himself to approve the type face thus produced. There remains to be seen what is worse: to admit the necessity of having a, theoretically at least, unlimited number of unit arrangements and good type or a limited number of standard arrangements and type that fits one of them as good, or rather as bad, as ready made clothes fit even the most normally built people. (I wonder how many of the prophets of the last named system, who defend it because of its economy, may wear ready made suits themselves!) My argumentation would be superfluous and useless when standard arrangements were to become the rule. An observation I should like to make by the way is that, generally speaking, every designer has a certain rhythm, largely of his own, that is apt to change much less thoroughly than, for instance, his treatment of detail. The consequence of this fact might well be that a unit arrangement that has once served him to his satisfaction will serve him again for a subsequent fount; unless, of course, it should be a fount designed for a very special purpose.

What normally happens at present is this: a ready design is given to the drawing office which, guided by a number of general rules – which, I am afraid, few of the people present and working now know the reason of – and a lot of practical experience, arranges it thus that it fits into an existing or new arrangement – the latter may be quite near several existing ones – and which, the drawing office, proceeds to make fit what does not fit exactly by, arbitrarily, making certain characters wider and others narrower. I need hardly say that this may well upset many intentions of the designer. Such inconsistencies as different widths of the counters in the several f-ligatures, here to mention only one class of them, are not seldom the result of this initial operation; and it should be obvious that such inconsistencies are unacceptable, even intolerable, to the conscientious designer. By the time the designer is called in, and shown anything (normally ‘Trial number one’ or a later one), so much work has already been done that he must be a cruel and most uneconomical monster to

reject all of it; at the same time so much harm may have been done, too, that the drawing office’s version has very little to do, indeed, with the original design.

The process I have just described may be the fate befalling a rendering of an existent fount and a completed original design alike. For the latter there is a remedy, if applied in due time, but for the former I fail to see any. The rendering of an existing fount can never be very closely related to its model. Hence the recipe I have given before in case such a fount *has* to be adapted; and also my advice to accept the inevitable modifications resignedly. For all these reasons I have at long last formed the opinion that Monotype and foundry type are and have to be looked upon as two essentially different things and that this truth should be accepted by all those concerned: type designers, typefounders, and Monotype rulers.

The consequence is that I am convinced that the best result can be obtained for a fount to be used *on* the Monotype, by having a design originally made *for* the Monotype. I have already said that no designer should try to make it on an existing unit arrangement that does not correspond with his own particular rhythm. I must now add that he should not complete his design without the Monotype people, and with them the Monotype restrictions, coming in long before; it is for this reason that I have, twice already, been using the term ‘a rudimentary design’. I mean by this that the designer, when he knows himself what he wants, should make a sketch in which his intentions as to form are of no importance whatever but which clearly shows the suggested widths of all of the characters in his projected fount. It depends on the size of his sketch whether he should take one millimeter, a sixteenth or an eighth or even a quarter of an inch, a pica, or any other unit he likes or that suits him, as representing one unit – of which set is nor should be, certainly for the time being, a concern of his – in what the drawing office is going to do next.

A few things the designer has to keep in mind when working on this first step of his part of the job:

1. everyone of his characters should fit in a whole number of his units; fit, that is, as the face of a letter fits on the body on which it is cast;
2. no character should be narrower than the narrowest (measured in as yet undetermined units) in the Monotype system nor wider than the widest;
3. that he should try to avoid as much as possible that an awkward number of characters has the same width; by this I mean an awkward number with regard to the number of characters in one row of the matrix case: if, for instance, he has seven or eight characters of say fourteen units he should understand that either they will all have to be made wider or narrower or that about an equal number of other ones will have to be sought to complete his row that is filled only by half.

He should, on the other hand, not be over scrupulous in this respect since taking into account too many technicalities, which are not primarily his concern, might hamper his designing abilities nearly as severely as his trying to work on a given arrangement would. It seems obvious that, in case a prospective designer were found entirely unacquainted with the unit system or nearly so, a little theoretical instruction would not only be useful but quite indispensable.

This sketch or rudimentary design—which has to be complete with ligatures, punctuation marks, signs, figures, and maybe special and accented sorts—has to be studied by the drawing office which should suggest, but by no means dictate yet, a unit arrangement. This provisional arrangement is likely to include suggestions for making certain characters wider and other ones narrower. Counter-suggestions from the side of the designer may follow.

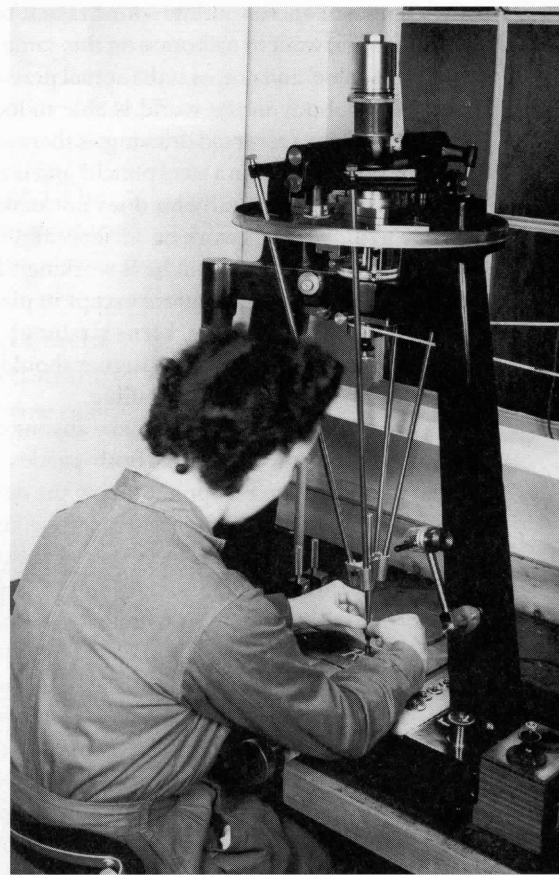
A designer who understands his job (which is only a part of knowing it) will, for example, not accept that certain f-ligatures have a counter width differing from that in other f-ligatures or from those in M or n (whichever of these two, if they are not equal, he may have chosen); nor will he accept that h and n have different unit values or certain capitals which, in a sound design, have equal width. Tampering with the once accepted set width should not be tolerated either. Rules like these should be known and respected by the designer and the works alike. They are part and parcel of the 'rare discipline' advocated by Mr Morison.

It is, however, quite possible if a and e were of equal width in the sketch, that one of the two has to be made wider or one wider and the other narrower, that the works' suggestion will not cover the designer's preference. There is no need to mention all the possible modifications in the works' suggestions which the designer in his turn may prefer.

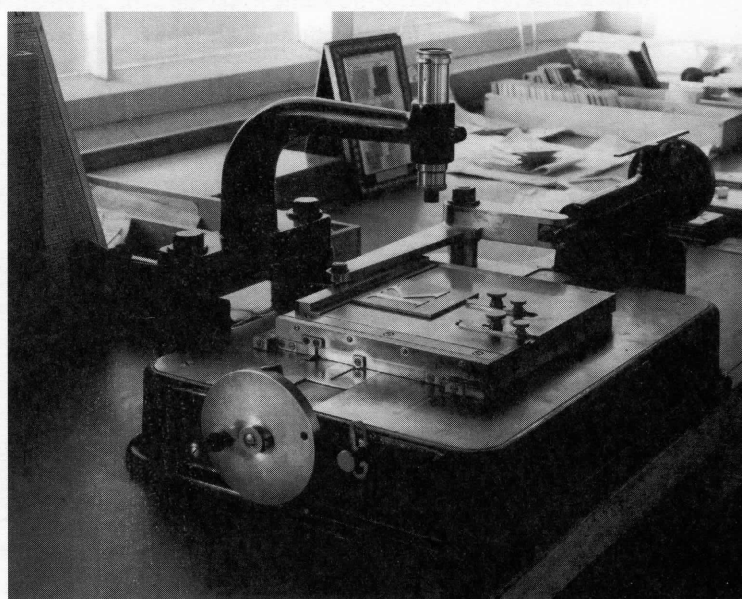
In the sketch there is, of course, a certain relation settled of the unit value and the body size. If it should be necessary, which is quite possible, to change this relation, if only by a trifle, this should be made known to the designer at the same time with the suggestions I have just been dealing with. It seems quite possible to me that I am overlooking some other point.

Two things I want to emphasize here. The first is that, at the drawing office, it should be kept in mind that during this stage their work is strictly advisory: if it went further the designer would be tied or restricted at a moment when he still has to be entirely free. The second is that the consultations described so far will involve no extra work on the side of the works since what is being done has to be done in any case.

After the two parties have reached an agreement on the unit arrangement the designer can proceed to make his design in considerably more than a rudimentary but not more than a preliminary stage. It should consist in a set of draw-



— Punch cutting.



— Checking copper pattern for dimensional accuracy.

ings in pencil and in outline—for I take it that the designer will, later on, want to elaborate on this same set—and, moreover, ‘readable’ and not, as is the actual practice of the works, reversed; nobody in the world is able to judge a letter or a character from a reversed drawing: is there anything sharper and more distinct than a steel punch? and is there any punch-cutter working by hand who does not make smoke proofs finally to judge of his work or, incidentally, to have it judged by the designer with whom he is working? These drawings, now, need not be too accurate except in places where there may be risk of fouling [i.e. kerns clashing]. And with these drawings in hand works and designer should, between them, settle the matter of avoiding fouling.

I am unable to see a reason why anyone could, from now on, go wrong, provided that both parties keep strictly to what they have agreed upon. So now the designer can complete his drawings which should be done in black on white; for, again, there is nobody in the world able to judge a drawing for printing type from a mere outline in greyish pencil.

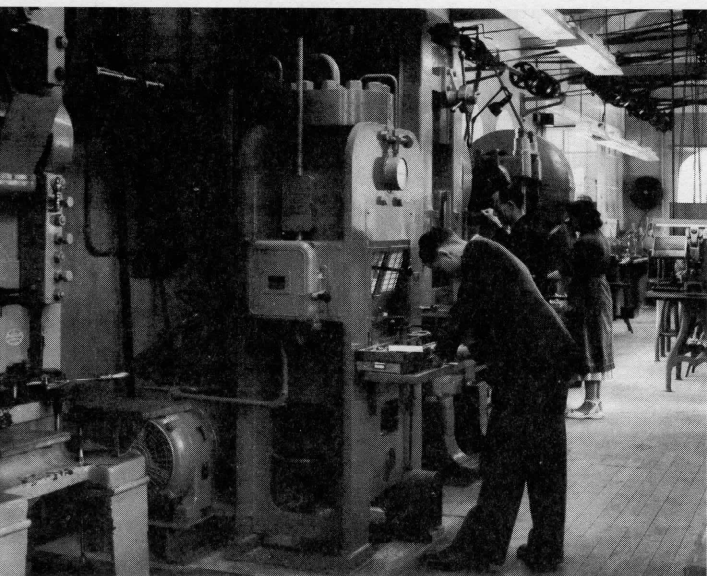
From the drawings so completed the works may start on their job. They must have a right to smooth out imperfections and irregularities—even if the designer should think, like Mr Rogers, that they are an asset to the fount—for, in the first place, studied and intentional imperfections are not real and therefore objectionable; in the second place they are opposed to the nature of the machine and they should, as a consequence, not be introduced into the machine’s work; in the third place they will not look the same in the type as they did in the drawing and, so, they are no good and of no use; and, finally, even the most carefully handled precision machine will yield its own imperfections which, having to be accepted at all events, will, for imperfections, have to do at the same time.

I want to repeat that it should not be forgotten that foundry type and Monotype type are different things just as hand-cut and machine-cut punches are. The properties and peculiarities of the one can not be combined with those of the other; and who tries to do so does it at the risk of producing a hybrid or a bastard. Both will reveal their failure: and both, in the end, are bound to be unable of giving satisfaction.

I am now coming back to the ‘certain human shortcomings’ I have hinted at earlier in this memorandum. To remedy them I can not give a recipe but only a recommendation. It is that the people who actually make the working drawings learn to see the subtleties in a design they have to prepare for the machine and, which is equally important, to respect them. I will mention only a few of the kind of subtleties I am thinking of: serifs that are hollowed out ever so slightly or next to nothing of a shoulder in such characters as N. It may be true that the hollowing out of the serifs or the deviation from the smooth curve are so slight that a line of that thickness, supposed it could be drawn, *on itself* can not be seen by the naked eye. This does not mean, however, that this same thickness, or even less, added to or deducted from a considerably thicker line can not be seen or noticed either. For it can and it is seen by a keen and trained eye as I have had the satisfaction of proving to the late F.H. Pierpont. It seems to me that the soul, so to say, of any design lies in its subtleties. If this be true it applies first of all to designs which, as those for type, largely consist of subtleties.

I have found it not to be understood by the works that, for instance, a serif may have been made concave not in order that it may show concave but just to prevent it from showing convex. I have an infinite respect for the works’ ability to measure. But I am absolutely certain that a keen ability to see, if only with a limited number of people, is of equal or even greater importance for the making of type. As long as some people are not trained and have [not] learned to see and appreciate essential subtleties they will go on to sin against the rightful intentions of designers and to spoil their designs by vulgarizing the fine touches from which they derive their value and charm. There is nothing against the use of french curves in the drawing office’s work, for they give a clear and unequivocal line, on condition that the curve is changed as soon as the merest deviation from the original design can be noticed. A subtle and careful design deserves to be followed with the utmost exactitude: ‘it is about right’ will never do.

I do not expect that the necessity of re-designing a number of characters, and re-cutting the corresponding punches, will entirely belong to the past when my system draughted here, should be adopted and followed. It is more than possible that even an experienced designer will be disappointed and not satisfied by the reduction in print of certain ones of his characters. But, then, I have never heard of any fount of type that has been approved in its entirety at once. I am, however, confident that the number of necessary re-cuttings will be considerably reduced. And, and this is of infinitely greater importance, that a type face produced according to my suggestions will be nearer the intentions of the designer and as a consequence be better than it could have been when made along the lines now followed.



— Presses (punch to matrix).