

an extra charge for the delivery of mail to people's houses or business offices? The foolish insistence on sending a man in uniform to each of the 17 million households every day is one of the causes of the insolvency of the postal service. And are there not circumstances in which some geographical spread of charges would in the long run be economic? Would it not even make sense to split up the postal services on a regional basis? The cost of carrying mails from the south of England to the north of Scotland is, after all, by no means negligible. The Select Committee on Nationalized Industries uncovered the significant information that the cost of handling an item of rural mail is something like 40 per cent greater than that of handling a piece of mail collected in the city. Given that telephones have now been in use for close on a century, has not the time arrived when the Post Office should ask its country customers to pay a little extra not merely for the sake of their city cousins but rather so that the postal services shall survive in some form or another? And is there not a case for qualifying the monopoly which the Post Office enjoys on the delivery of mail, which has on occasion prevented other nationalized industries such as the electricity and gas utilities from distributing their own mail? Nobody would ask for changes that would rob the Post Office of its bread-and-butter, but there are already provisions in the Post Office Act for shading the traditional monopoly of the Post Office Corporation. It would be sensible now if the Post Office were to set about hiving off on a commercial basis those parts of its traffic which are most embarrassing financially.

Better management may help to keep the wolves at bay, but to the extent that the government and the Post Office Corporation have the public interest at heart, there is also a strong case for asking that they should between them encourage the development of those devices that will in the long run help to take the strain off the postal services. Quite simple devices could do a lot to help. At present, for example, it seems most probable that the capital equipment of the telephone network is much less fully used than it might be, partly because of the lack of switching equipment and partly because the tariffs at present levied by the Post Office are not designed to encourage traffic. If in due course the rural users of the postal services are to be given an economic alternative, this is where the Post Office should put its efforts. If the fixed element of the rental charge which telephone subscribers pay is actually excluded, the average telephone call costs the customer about the same as a first class letter. Even with the rental charge included, the cost is only twice as high. But everybody knows that the telephone is at once less convenient and less cheap than other devices, telex for example. So is not the government's duty to require first of all that postal carriage should match economic costs so that existing telecommunications services can compete effectively with the methods of the 1840s, and then that large sums of money should be spent on the development of the radically different systems that the 1980s will require? This is what Mr Jackson's understandable intransigence has demonstrated.

In the recent history of the British Post Office, there is nothing to suggest that these opportunities will be seized upon. When the Post Office was a government department, it was renowned for its conservatism. Theoretically, making it into a public corporation should have invested it with a more vigorous competitive spirit. In the event,

however, the public corporation turns out to have all the disadvantages of a privately owned company and few of the advantages. Lord Hall, the last chairman—no successor has been named—enjoyed the apparently compliant support of his colleagues on the corporation but was sacked by the minister as if he had been an errant office boy. By the same test, the corporation is able to put its hand on the very large sums of money needed to keep the telecommunications network extending over the country without having to compete for these in public, simply because nobody wishes to see the telecommunications network languish. Yet the corporation's stake in research and development, let alone systems planning for the future, is much less expert than it should be. Commercial organizations in the strict sense would never dare to make the assumptions about the affections of their customers which even the devolved Post Office Corporation takes for granted. What the strike has done is to give the Minister of Posts and Telecommunications even greater authority over the Post Office than his predecessor dared to exercise. Is it, perhaps, that the British government is preparing the way for a different recipe for devolution? This is another of the hornets' nests that Mr Jackson may have disturbed.

## 100 Years Ago



### The Primary Colours

I HAVE been greatly interested in reading Mr. Strutt's curious experiments on colour in the last number of *NATURE*. I am glad to see that he is able to assume as proved the theory that green and not yellow is the middle primary. The true position of green is well illustrated in Mr. W. Benson's "*Principles of the Science of Colour*," both by argument and by diagrams. There is, however, one piece of evidence which seems to me conclusive as against yellow, but which I have not seen noticed.

When a solid body is gradually heated to incandescence, the light given out is first red, then orange, afterwards yellow, and finally white. If yellow were a primary, it would be impossible for it to appear in this series, which is formed upon the basis of the first primary, red, by successive additions of more and more rapid vibrations. Every colour in the series except the first must be a compound. If the heat is not sufficient to generate the most rapid vibrations which the eye can appreciate, white light is not given off at all, the series terminates with the yellow. The light of a glowing coal, without flame, in an ordinary fire, rarely passes beyond the yellow stage, and such light yields to the prism abundance of red and green rays, but scarcely a trace of blue or violet.

But, if red is the first primary, and green the second, which is the third? Shall blue still sit upon the throne on which Newton placed him, when his brother yellow is deposed? I think his position has become extremely precarious, and that he would be wise to abdicate with dignity before he is ignominiously turned out as a usurper.

If the kingdom of light is really divided into three principalities, is not violet the rightful heir to the third throne? Violet is said to be a mixture of blue and red. But how should red make its appearance at the wrong end of the spectrum? If it has no definite limit, but gradually thins out from its own place to the other extremity of the spectrum, then the whole of the other colours must be more or less affected by it, and red must be the only true primary among them. If it is said that the red in violet is clearly recognised by the eye, I think it may be answered that this is only because we have been taught to think of it as a compound, and that we might just as truly say that we can see yellow in green or orange in red.

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