

may lead to increased accuracy of weather forecasting. Two depressions during the monsoon of 1930 are examined in considerable detail. The conclusion is reached that the main fronts were formed between 'fresh' monsoon air, resulting from an accelerated advance of this damp air from the far side of the equator, and 'old' monsoon air, that is, air that had a similar origin but had been modified since its first advance, having become the warmer of the two; that fronts also formed between monsoon air and heated continental air that was part of the westerlies of middle latitudes and was the warmer up to about 3 kilometres. It is concluded that depressions retain their strength so long as plenty of fresh and old monsoon air is available.

Another paper dealing with the same subject on the same lines forms the next in this series of memoirs. It is by N. K. Sur, and is entitled "On the Physical Characteristics of Fronts during the Indian Southwest Monsoon" (*Mem. India Met. Dept.*, vol. 26, part 3). Both these papers appear to have been inspired by an earlier paper by Wagner "On the Aerology of the Indian Monsoon" (*Gerlands Bei. Geophys.*, 30, 196-236, 1931). The Indian authors appear to question the truth

of Wagner's picture of cold dry westerlies extending right across the north of India, so as to form the cold sector of a vast stationary depression in which the ascending warm current is drawn primarily from the seas to the south and west of India, and has been deflected westwards by the mountains of Burma and Assam.

In Sur's paper stress is laid on the difficulty of determining the lines of flow in the upper air during times of increased activity of the south-west monsoon, owing to the fact that the amount of cloud generally makes it impossible to follow pilot balloons to high levels. It is shown that at times, in the most active stages of the monsoon, a wedge of dry continental air separates the south-westerly winds from the Arabian Sea from the easterlies of the Gangetic valleys, and the characteristics of some of the fronts occurring with these three air streams are discussed with the aid of sounding-balloon data; cases of cyclonic rains in Central India are described in which continental air played, apparently, no part, the easterlies ascending directly over deflected south-westerlies from the Arabian Sea, moving towards the east. It is these studies that make the author doubt the reality of Wagner's conception.

## News and Views

### Science and Human Values

IN the course of a recent address to the Ripon Diocesan Conference at Harrogate, the Archbishop of York, Dr. Temple, remarked that "there has sprung up an immense multitude of new schools which are predominantly scientific in type", and that "while education until lately had been unduly literary in its emphasis, there is a risk now of its becoming unduly scientific". Leaving out of consideration for a moment the inferences drawn by Dr. Temple from these suggested developments, it would be interesting to know what group of schools he particularly had in mind. The largest group in which science occupies a place in the curriculum is the 1765 secondary schools recognised by the Board of Education as efficient. There are more than half a million pupils in these schools, and the attention given to the various subjects of instruction may be estimated from the subjects taken by candidates in School Certificate examinations. Of the 68,406 candidates who presented themselves in the First School examination last year, more than ninety per cent took English, history, French and mathematics. Latin, chemistry and art each attracted about forty per cent. In the Second School examination, the highest percentage of entrants was in mathematics (44.6), and succeeding percentages were French (38.3), English (37.5), history (33.1), physics (31.6), chemistry (31.0), Latin (21.5). This examination leads up to university scholarship standards, and

the number of open scholarships and exhibitions awarded by the universities of Oxford and Cambridge last year were in classics, 148; history, 115; science, 104; mathematics, 70; modern languages, 53; and others, 99.

THESE figures may be taken to represent fairly what are the chief subjects taught in our secondary schools; and they give little support to the view that an immense number of schools is giving predominant attention to science. There is indeed not even a remote possibility that our secondary schools will become unduly scientific instead of unduly literary; and very few men of science would wish them to be. What Dr. Temple fears is that, as science is concerned with observation and measurement instead of human values, "there is great danger in it if the proportion between scientific and humanistic training is seriously distorted". Why, because "All the things that matter most in life, such as friendship, fellowship, and loyalty, are not capable of measurement, nor can they be submitted to any laboratory test", it should be assumed that students of science are necessarily unfamiliar with these intangible attributes is difficult to understand. The purpose of a scientific training should be to observe or investigate evidence before arriving at judgments; and the world would be all the better if this method were followed in political and other social spheres.