

Honan within the last three or four years, and, in a less severe form, in one or two of the adjoining provinces. Shansi is still suffering. And now the south-east of the province of Kansuh has been visited by a destructive earthquake. The *Peking Gazette* of the 22nd of August states that a memorial has been received from Tso Tsung-t'ang, Governor-General of Shensi and Kansuh, reporting that on June 29 a slight trembling was felt at *Chieh Chow*, and at other sub-prefectures and districts within the province of Kansuh. This trembling, which occurred at first on alternate days and afterwards continued for several successive days, did not entirely cease until July 11. The earthquake would appear to have reached its height on the third day; for Governor-General Tso reports that on July 1 there was a violent shaking accompanied by a noise. A temple, several official residences, and many dwelling-houses were completely destroyed, and many persons were killed and injured.

In the Imperial edict Tso Tsung-t'ang is directed to send officers to the scene of the calamity to hold an investigation into the matter and afford relief to the sufferers.

A. H.

Canton, September 13

Vertical Shafts in the Chalk in Kent

IN the current number of *Good Words* there is a pleasant, gossiping paper by the Rev. J. G. Wood, giving an account of the curious well-like shafts found in the chalk about Erith. They are 40 feet to 100 feet in depth. Mr. Wood states that the sides show traces of having been wrought with picks made of deer antlers. He appears to accept the theory of local archaeologists that the shafts were executed in "prehistoric" times, in the quest for flints for weapons or for some less obvious purpose.

Under any circumstances I should be loth to dispute the view of so competent an authority, and in this instance I have no local knowledge to guide me; but I should be grateful if some of your readers would satisfy me on the following point:—Is there any instance of similar excavations which have been conclusively proved to be the work of savages ancient or modern? I know of none within my own personal experience.

Burrows on the "adit" or "gallery" principle, *i.e.*, more or less horizontal, can be carried surprisingly far, so long as the roof does not fall in. We see this in the abodes of certain quadrupeds. But, to carry down a vertical shaft a few feet in diameter to a depth of 40 feet to 100 feet from the surface, even in a soil as favourable as chalk, appears to me to involve recourse to mechanical appliances not yet observed in use among primitive races. If I am wrong in this matter, the mode of excavation pursued by these rude shaft-sinkers certainly affords interesting matter for study.

H. M. C.

London, November 1

THE FUNCTIONS OF UNIVERSITIES

WE reproduce with pleasure the following extract from an article on this subject from the *Times* of Friday last, in connection with Prof. Max Müller's address at the Birmingham Midland Institute:—

It would doubtless be unjust, as Prof. Müller points out in his address, to attribute the lack of spontaneity, the tendency to mechanical uniformity in academical studies, exclusively to the influence of an elaborate system of examinations. Examinations are clearly necessary, as he justly contends, even though they are no better than a necessary evil; but they are rather means than ends, and they clearly become mischievous when they corrode and destroy the true spirit of academical life. Prof. Müller, a German professor in an English university, whose opinion is on that account entitled to peculiar weight, draws a favourable contrast between English and foreign universities; the former, he says, are free and self-governed, and that gives them an unrivalled position in spite of all their faults. The remark is true and appropriate, especially as a rejoinder to the hasty and ill-considered criticisms of Prof. Helmholtz in his rectorial address at Berlin, delivered some time ago. But the corporate freedom of the English universities, is, unhappily, not inconsistent with a good deal of personal bondage. Let

us contrast, for instance, the career of a graduate of a German university with that of an English Fellow of a college. The former, as soon as he has passed the necessary examinations for his degree, is perfectly free to follow his own bent. Even in taking his degree he is entitled to claim it, partly at least, on the ground of some dissertation which he has written containing the results of his own independent study and research. If he elects to follow an academical career, he becomes at first a Privat-docent, and has to attract pupils, not by his power of preparing them for a particular examination, but by his command of all the available knowledge in a special branch of study, and by his capacity for enlarging its bounds. If he is called to be a professor, it is because he is known to be master of his subject, and to be keeping himself on a level with the march of knowledge in relation to it. The English graduate may have all the aspiration to follow this career of true academical freedom; but his pupils for the most part have no higher object than to pass an examination, and it is his business to prepare them for it. Any knowledge that he possesses beyond the range required for that purpose becomes a useless burden to him. The results of fresh research necessarily find their way but slowly into examination papers, and consequently the teacher at an English university, if he studies at all, is bound to study, not for himself, but for his pupils. He must learn all that they want to know, and he must put his knowledge into the form which will be most readily available for their purposes. Hence, if he has time to write at all, he writes summaries of history, essays in philosophy, or prepares a handy edition of a portion of a classic commonly read in the schools. A learned and scholarly edition of an author unrecognised in our somewhat narrow classical curriculum, a history like Grote's or Gibbon's, a philosophical work like the "Essay on the Human Understanding," or the "Critique of Pure Reason," are works hardly now to be looked for from a resident English graduate. Professorial work, of course, is different; it is beginning now to be recognised that it is the business of a professor to study widely and deeply and to advance the bounds of knowledge. But if the coming generation of teachers, the professoriate of the future, is to be confined to the range of a rigid and cramping system of examinations, narrow in their content, but all-embracing in their extent, what hope is there for that academic freedom, for that bracing spirit of living knowledge, of active thought, of ever-advancing study which, as Prof. Müller tells us, it is the true function of a university to foster and keep alive?

The truth is, perhaps, that our universities are a little too careful of the functions they so admirably discharge of finishing schools, a little too unmindful of those higher duties to which Prof. Müller's address forcibly calls attention. All that they do is done well, but there is still one thing needful. "That is the true academic stage in every man's life when he learns to work, not to please others, be they schoolmasters or examiners, but to please himself; when he works for sheer love of work in and for the highest of all purposes—conquest of truth." How many of our English University students ever reach this stage at all? That they learn much and learn it well cannot be doubted, that they are examined much and are examined well is equally indisputable. But we should be very sorry to see the Universities complacently resign the function of making scholars in favour of that of testing the attainments of schoolboys. We are very far from arguing that examinations can be dispensed with altogether. They have their purpose, and it is a very necessary purpose to fulfil. It is their indirect results in stereotyping academical effort, in extinguishing academical freedom, in discouraging wide study, in checking individuality, and in repressing spontaneity, rather than their direct results, that we have to fear. The evil is no