

War and inflation had had a great influence on the fate of the purely commercial classes. Distribution was considered a mere parasitical undertaking. This reduced position of commerce enabled the manufacturing element to push forward with a policy they had embarked upon before the War—the ousting of the trader. The tendency which was visible in Germany before the War of industrial concerns trying to eliminate the trader by erecting their own distributing agencies greatly increased as the result of voluntary or compulsory cartellisation. The purely physical conception of production was most clearly visible in the attitude taken by business people in their relation of creditor and debtor. The debtor in their minds was a producer who carried out technical and economically important functions. The creditor, if not an industrial producer himself, was a kind of leech sucking the life-blood of the industry. These views, influenced no doubt by a very short-sighted self-interest, were clearly akin to the medieval attitude to usury. Even since stabilisation has been accomplished, these views have not changed very much. The theory of prices underlying development in what might be called the era of competition, had been due to the conviction that low prices were a boon to society and that economic progress was identical with slowly falling prices. The medieval theory was the same in so far as consumers' interests came first. It believed, however, in stability, as without some stability the functional income of the producer could not be maintained.

The theory that falling prices conferred a benefit on mankind is now being deserted. Instead of it, a theory is growing up that rising prices, by giving a stimulus to production, are the real solution of social problems. First came Protection, which tried to raise prices for certain selected privileged goods, its advocates maintaining all the time that the general level of prices would not be affected. Then came inflation, with its spurious boom, which owing to rising prices was supposed to expand production. When carried out to its bitter end, as it was in Germany, it certainly had not produced the much-advertised benefits. After these not over-favourable experiences with wholesale inflation came the theory of homeopathic inflation, its advocates maintaining that by proper dosing of credit, stabilisation of sorts could be secured. Prices must not be allowed to fall under any con-

ditions; wherever there was a tendency to fall, the issue of credit or the floating of loans abroad must prevent them sagging.

The theory of stabilised prices, which in its practical bearing was eagerly absorbed by business men, who cared nothing for its theoretical meaning, was closely affiliated to the medieval conception of maintaining a certain social order and a certain individual income. This is clearly demonstrated by the practice of many cartels. The question to be discussed is not free competition or monopoly; it is the peculiar form of monopoly aimed at or achieved by some influential cartels. The type of cartel in question is an agreement by which the individual works bound themselves to trade their produce by some sort of joint selling agency and to restrict their output if necessary. Now this sort of cartel is not based on any modern conception of efficiency. It standardises inefficiency at the cost of the consumer.

When comparisons have been made between trusts and cartels, cartels have always been praised for the maintenance of a number of separate enterprises. Where in a trust the initiative of leadership is reduced to a single head or to a small group of persons, the parties of a cartel continue as individual 'Captains of Industry.' As a matter of fact, they remain technical managers of their individual concerns, freed from the necessity and possibility of selling the produce they turn out. They are utterly divorced from the mere business side of their job, the marketing of their goods. The price fixed by the syndicate must be high enough to yield an income, though these works are run at half capacity and ought not to be run at all. It had often been said that the price must be high enough to keep the worst concern going. The trust need not be badly financed, but it is almost a law of Nature that the firms forming a cartel must. A trust may have many of the advantages claimed by the cartel, though some form of control was required. Real progress in a capitalistic world is, however, impossible without writing off, whereas cartels are essentially a well thought-out system of maintaining inflated capital values. The right to profit, to rents, and even to unearned increment, which the capitalistic system has conceded to private enterprise, must be counterbalanced under the system by a corresponding obligation to loss.

Examinations—The New Compromise.

THE Departmental Committee on Examinations for Part-time Students was appointed in 1927 "to inquire and report as to the arrangements for the examination of students attending part-time schools under the regulations for further education, with particular reference to the place and value of examinations as an element in training for industrial, commercial, and professional activity." Its report has just been published (London: H.M. Stationery Office, 1s. net), and contains chapters—notably those on the purpose of examinations and the planning and conduct of examinations—which should be read by all teachers. It will be of special interest to teachers in technical institutions, since they particularly will be affected by its recommendations.

Briefly, the report recommends a compromise. For some years now there has been a sharp division between supporters of the purely external and of the purely internal systems of examination. Indeed, the controversy which the report is expected to settle may be traced back to 1911, when the Board of Education's Circular 776 withdrew the old Science and Art Examinations and gave freedom to institutions to organise internal examinations, the final

certificate of which would be endorsed by the Board. But it appears that the scheme has not been widely used, and the weakness would appear to have lain in the fact that many part-time classes are taught by part-time teachers who are sometimes not expert in setting and marking papers. But this was not the only cause of the failure of purely internal examinations. Most part-time students take courses in order to benefit vocationally. They therefore need a certificate of which employers all over Great Britain will recognise the value. The certificate granted by a school as a result of an internal examination does not yet fulfil that condition.

Many teachers have naturally desired to retain the principles of Circular 776, which they regarded as a charter of freedom, and the time will doubtless come when those sound principles will be found generally practicable. In the meantime, the present report sees the value, particularly in their possibilities of counting such important things as laboratory and home work, of internal examinations. But it also sees their present defects, and has decided upon a compromise in the form of modified external examinations. It envisages a system in which they are

conducted by unions of local education authorities throughout Great Britain.

Whether such groups of unions will, in fact, do all the report expects, is not a matter upon which any pronouncement can be made now. From the recommendations made, however, it may be possible that ultimately a more ideal system can be built. It is a pity that, in the report itself, no mention was made of the future possibilities when the obstacles to the excellent principles of Circular 776 will be swept away. If examination, as the report wisely shows, is an educational function, hope still stays with the idealist: for in education "nothing is constant but change."

Origin and Structure of the Viviparidæ.

TWO exceedingly important papers by Dr. Bains Prashad have appeared, nominally concerned only with the Viviparidæ, but in reality covering far wider ground (*Mem. Indian Mus.*, vol. 8).

The first deals with the recent and fossil Viviparidæ and constitutes a study in distribution, evolution, and palæogeography. The author attempts to determine the taxonomy of the family, the dispersal of which he considers to have taken place along the freshwater streams. The ordinary zoogeographical regions are of no value for the Viviparidæ, which are, therefore, considered here according to the continents and countries in which they are found, a sketch map being appended. The fossil members are treated on similar lines and genealogical trees given. The various sculptured forms are held to have been independently evolved in the different regions, and their palæogeography is discussed so far as it has a bearing on the subject in hand.

Setting aside Garwood's *Viviparus carbonarius*, for reasons which some will consider insufficient, the author holds that the Viviparidæ arose from the common stem of the families Trochidæ and Turbinidæ in the early Jurassic period, not, however, from a common ancestral form, but polyphyletically, taking to freshwater life in at least four regions, namely, western Europe, North America, peninsular India, and Australia. The probable time of origin in each area, the evolution of the different subgenera, and the lines of migration are then discussed.

Dr. Prashad's second paper, "On the Mantle and Shell of the Viviparidæ," was undertaken in continuation of the work of his late chief, Dr. T. N. Annandale, on the problem of the shell sculpture in the family. After a preliminary historical sketch of the relation between the shell and the animal in Gastropoda, the author passes to a detailed study of the mantle of the Viviparidæ, the important difference of which, contrasted with that of other gastropods, lies in the development of special processes on the mantle margin of the embryos, some of which also persist in the adults. There are three primary and a number of secondary and tertiary processes which correspond to the ridges or sculpture on the shells. The section dealing with the shell is in matter of fact an able summary of all that is known concerning the structure and formation of gastropod shells as a whole and should be overlooked by no malacologist.

The paper concludes with a "Review of the Literature on the Embryonic Shell-gland and Associated Structures in Mollusca," and a bibliography. The plates, five in all, are excellent specimens of photolithography, and the whole work (pp. 167) reflects the greatest credit on those responsible for its production, including the Zoological Survey of India, which in a sense is the parent of it.

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University and Educational Intelligence.

CAMBRIDGE.—Mr. C. Warburton, Christ's College, has been re-appointed demonstrator in medical entomology. Miss A. S. Dale, Newnham College, has been elected to the Michael Foster research studentship in physiology. Mr. H. J. Pfister, of the University of Birmingham, has been nominated to use the University's table at the Zoological station at Naples for one month.

LONDON.—The new statutes have been submitted to His Majesty in Council. Eight weeks from the commencement of term will be allowed for petitions. We understand that a petition has been presented by a member of Convocation for the disallowance of certain statutes nullifying or restricting the privileges of Convocation in relation to the appointment of its clerk and the approval of new statutes. The same petition objects to the exclusion of the Royal College of Science, London, from the list of Schools of the University in the Faculty of Science, on the ground that the College became a School of the University in the Faculty of Science under the statutes of 1900 and has not lost that status. The statutes were sealed by the Commissioners on July 23, 1928.

OXFORD.—On Tuesday, Oct. 23, Congregation had two measures before it, both of which raised questions of interest to scientific men. By the first of these it was proposed to curtail the present permission of research students in letters or science to reckon periods of residence in vacation towards their statutable terms for the degrees B.Litt. or B.Sc. respectively. It was pointed out by Prof. E. B. Poulton that the opportunities for the requisite study were at least as open in vacation as in term, and that the effect of the proposed statute might well be to put great difficulty in the way, for example, of aspirants to the science degree domiciled in distant countries and with limited periods of leave. The preamble was rejected by 88 votes to 80.

The second, a decree supported by the Provost of Worcester and Dr. J. Wells, and opposed by Sir Harold Hartley and Mr. A. H. Smith, proposed the acceptance of a generous gift of £10,000 by Prof. Joseph Wright towards the cost of extending the Taylorian Institution along the front of St. Giles's. Ungracious as it seemed to decline so munificent an offer, it was felt that the conditions attached to the gift were not in the best interest of the institution concerned, nor ultimately in that of the University. The question of provision for the future housing and extension of the Ashmolean collections, of unique scientific and archæological value, is involved; and it appeared to the majority that a more considered and wider scheme was called for than that recommended by Council. The decree failed to pass, there being 92 votes for it and 121 against.

An equally liberal gift of £10,000 from Capt. Brynar Owen and Mr. W. J. Mallinson for the purpose of engineering research in connexion with the Institute of Agricultural Engineering was gratefully accepted.

THE Institution of Chemical Engineers announces that application forms and particulars of the associate-membership examination for 1929, together with a memorandum on "The Training of a Chemical Engineer," may be had from the Honorary Registrar of the Institution, Abbey House, Westminster, S.W.1. The application forms referred to must be returned by Dec. 15.