points are applicable to any camper-out, to any one who has to do with mining or civil engineering, and it should be brought to the attention of a wide circle.

ALFRED C. LANE

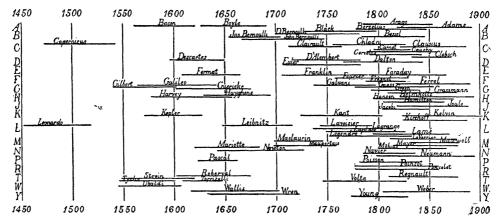
TUFTS COLLEGE, MASS.

SCIENTIFIC JOURNAL

The Journal of Experimental Zoology, Vol. VI., No. 4 (July, 1909), contains the following contributions: "Factors of Form Regulation in Harenactis attenuata," by C. M. Child. The contraction of tissues following a wound does not appear to be an adaptive reaction to accomplish wound closure, but merely a physiological result of the injury to the tissues. The rapidity of oral restitution and to some extent the size of the parts decrease with increasing distance of the level of restitution from the original oral end, until in short proximal pieces restitution usually ceases with wound closure. "The Effects of Centrifugal Force upon the Eggs of some Chrysomelid Beetles," by R. W. Hegner. Eggs of five species of three genera of chrysomelid beetles were centrifuged at ages ranging from those freshly laid to those with well-developed blas-Three strata were induced regardless of the orientation of the eggs in the centrifugal machine. In some cases eggs with their contents redistributed produced normal embryos or larvæ; in other cases a dwarf embryo resulted at the inner (light) end of the egg, not having grown around the yolk as in eggs developed normally. Female beetles after centrifuging laid eggs as usual; these with two exceptions produced normal larvæ. "Contributions to Experimental Entomology, I., Junonia cænia Hübner; II., Two Cases of Anabiosis in Actras selene Hübner," by William Reiff. "Adaptation and Immunity of the Lower Organisms to Ethyl Alcohol," by J. Frank Daniel. The author studied the acclimatization of certain infusoria (Stentor and Spirostomum) to alcohol. Some strains of these animals showed a considerably increased resistance to alcohol after being kept for a few days in weak solutions of this substance. In other strains, having a high resistance to begin with, scarcely any increase of resistance could be caused by this means. The increase of resistance was limited to the substance used in acclimatizing the animals; when acclimatized to ethyl alcohol, they showed a decreased resistance to other chemicals.

HISTORICAL GRAPHICS

Some time ago, while preparing a paper on the history of physics, I adopted the plan of inserting the life interval of the great masters in metric cross-section paper, to the year. My only excuse for referring to the matter here is this method of reference, which proved itself surprisingly useful, both at that time and since. It consists in plotting straight line life periods chronologically, from left to right and the corresponding names alphabetically from top to bottom. Authors are thus easily found and the chronological comparison is im-



mediate. If hand charts are desirable it is expedient to reserve one chart for each of the great divisions of physics, dynamics, molecular physics, acoustics, heat, light and electricity. I attach such a chart of names bearing on the history of dynamics, in which the main coordinates only have been indicated, as the smaller divisions should be in a subordinate color. It shows, for instance, the dearth of interest in such subjects in the middle of the sixteenth century and toward the beginning of the seventeenth century, except on the part of a few men of irrepressible genius, as well as the terrific general onslaught which occurred with the beginning of the nineteenth century.

To make the chart more useful the chief date in each life should be indicated by a crossline (not shown), as for instance in case of Newton, the date of publication of the "Principia," of the "Optiks," etc.

I am writing this note with the hope that somebody will undertake the work seriously and with some degree of completeness. It seems to me clear that available wall diagrams of this kind would not only enliven the work of the teacher of a forbiddingly difficult subject, but would suggest the vast array of profound investigation to which the physics of the present day owes its assurance and trenchancy.

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SPECIAL ARTICLES

CARL BARUS

ON THE OCCURRENCE OF THE LITTORAL BARNACLE CHTHAMALUS STELLATUS (POLI) AT WOODS HOLE, MASS.

To one acquainted with the world-wide distribution of this barracle, it would seem rather superfluous to call attention to its presence in any specific locality. It is a rather curious fact, however, that this abundant and almost cosmopolitan species seems to have hitherto escaped the notice of those who have listed the New England fauna. Neither Gould ("Invertebrate Animals of Massachusetts," 1840), nor Verrill ("Invertebrate Animals of Vineyard Sound," 1873), nor Miss Rathbun ("Fauna of New England: List of the

Crustacea," 1905) have included this barnacle among the New England species, though certain far less common forms are listed by each of these writers; and the only reference of which I am aware to its occurrence on the Atlantic coast of North America is contained in Darwin's "Monograph of the Cirripedia," in which he refers to "some specimens attached to oysters sent to me by Professor Agassiz, from Charlestown" (p. 457). It would seem more than possible that Charleston is here intended, for on a previous page (456), Darwin includes "Southern United States (Charlestown)" among the localities from which Chthamalus stellatus is recorded. I am informed by Miss Rathbun that no specimens of this barnacle from New England are known to be contained in the U.S. National Museum collections. Through the kindness of the curator, Mr. C. W. Johnson, I have examined specimens of this species (varieties communis and fragilis), contained in the collections of the Boston Society of Natural History. The locality has not been recorded, however, and there is nothing to indicate whether or not the specimens came from New England waters.

The author was first led to look for this species at Woods Hole during the present summer, when he found it to occur in considerable numbers on Penzance Point, along the shore of Woods Hole passage. Further search has revealed its presence on the piles of piers at Woods Hole, New Bedford and Vineyard Haven, and on rocks at Nobska Point, Nonamesset Island, and the shore of Buzzards Bay near Woods Hole. It is probable, indeed, that its local distribution is very general. At the last named point this species seems to be particularly abundant. It extends considerably higher up on the boulders than does Balanus balanoides, with which, however, it is associated at a lower level. It thus occurs at points which must be uncovered by the tide for the greater part of the time. In local waters, so far as I have seen, Chthamalus never grows in such dense clusters as does Balanus balanoides, and indeed it appears unable to compete very successfully with the latter in its proper zone.