They shall mobilize the available botanical forces of the United States, especially those workers who are now engaged in war emergency work, and by careful distribution of the work and by correlation of effort seek the early solution of those problems which are of greatest immediate significance. The support which any movement receives and its effectiveness depends largely upon its leaders, hence these committees must be wisely selected and composed of aggressive men of action whose wisdom and personality will command the allegiance of their fellow botanists.

Many may doubt the wisdom of the plan I have suggested and feel skeptical of the results to be obtained through committees. I do not care what plan is adopted—the essential thing is action. No one can longer doubt the seriousness of the path which lies before this nation or question the imperative need for the greatest service botanists can render. American manhood is preparing to suffer and die upon the battlefields of Europe, and we who stay at home must not fall one inch short of the greatest accomplishment of which we are capable in providing the food and supplies our soldiers need. Any failure on our part means prolonging and intensifying the frightful agony. Have we thus far done our best as botanists? Are all botanists working with the single purpose of doing their full duty in this war? Does not unpreparedness still characterize us as a class? Have we not in general continued our pre-war activities, thinking the war would soon be over, or waiting for some mighty call to draft us into service? Let us wait no longer, but call *ourselves* to service. There is time to prepare for an effective campaign during 1918; there are many botanical questions of paramount national importance which should be solved this coming year; and there are many botanists who have assured me that they will gladly turn aside from their present work if they can serve more effectively elsewhere. Let us organize for more effective service that we may attract all available workers to our ranks and enlist every botanist in war emergency work. Let us develop a logical and comprehensive plan of campaign which shall supplement the plans of federal and state departments of agriculture and receive the united support of American botanists. Let us wisely correlate our efforts that we may increase our immediate accomplishment and make of American botanists a powerful army of trained scientists moving forward with power and precision in the service of the nation and the world.

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SCIENTIFIC EVENTS

ENGLISH VITAL STATISTICS

THE Registrar-General's return of vital statistics for 1916 in England and Wales, according to an abstract in the London *Times*, shows a reduction of 4.5 in the marriage rate as compared with that for 1915, when it was exceptionally high, and the lowest death-rate of children under one year ever recorded.

The report refers to the difficulties of framing estimates of population owing to the war. These have become so formidable that it is no longer possible to put forward figures otherwise than as rough approximations. As the estimates (except those for birthrate and marriage-rate purposes) are for the civil population only, enlistment has been treated as equivalent to emigration. The estimated civil population of England and Wales was 34,000,000 in 1916 (15,000,000 males and 19.000,000 females).

The marriages during 1916 numbered 279,846, a rate of 14.9 persons married per 1,000, 0.6 below the average rate of the decade 1901-10. The marriage rates for 1916 were 49.6 for males and 41.0 for females, the lowest hitherto

recorded for females, and the lowest but one for males.

We have thus (the report states) the curious phenomenon of an unprecedentedly high marriage rate in 1915 succeeded by an almost unprecedentedly low one in 1916. The flood of marriages which set in with the second quarter of 1915 did not ebb until a year later, so that considerably more marriages were registered in the first quarter of 1916 than in the corresponding quarter of any previous year. These violent changes are no doubt the direct consequence of the war, and appear in 1917 to be giving place to a less abnormal state of affairs.

There was in 1916 a notable increase in the proportion of marriages of young widows. The population of widows under thirty years of age must have been greatly increased as a result of the war. The marriage prospects of spinsters were decreased for two reasons—there were fewer marriageable males in consequence of the losses of unmarried combatants, and more marriageable females in consequence of the losses of married combatants.

In proportion to the total population, the birthrate was 20.9 per 1,000 living. The reduction of natality accompanying the war only amounted to 12 per cent., whereas in Germany the fall was reported to have been 40 per cent. in the two years 1915 and 1916.

The excess of births over deaths was 277,303. The number of fatal casualties incurred by English and Welsh troops during the year, says the report, must be very much lower than 277,303, and so the increase in population must have continued. The German statistics record 1,331,000 deaths in 1916, apparently exclusive of at least the great majority of fatal war casualties, as against 1,103,000 births; and the Hungarian figures are for deaths "not in action" 428,057, as against 333,551 births.

The deaths of 508,217 persons were registered, a rate of 13.3 per 1,000. The deaths of children under one year of age numbered 71,646, or 91 per 1,000, the lowest rate ever recorded. Eighty-eight reputed centenarians died, 70 of whom were women.

STANDARD TIME AT SEA

FOLLOWING the action of the French navy the Lords of the Admiralty summoned a conference of representatives of the various government departments and scientific societies interested, to consider and report upon the desirability of establishing a standard time at sea in the British naval and merchant services. The report of this conference has now been presented to the Lords of the Admiralty, and the *Geographical Journal* publishes a summary of its recommendations. The conference had the advantage of the assistance of the French hydrographer, M. Renaud, accompanied by Lieutenant de Vaisseau Moreau, of the wireless staff of the French navy.

The principal business of the conference was to consider the desirability of extending to the sea the system of time zones now widely adopted on the land; a system whose advantages have long been recognized as highly conducive to precision and certainty in the interchange of telegrams, the arrangements of train and postal services, and in many other departments of life. Until recently a ship at sea was a law to itself; and although ship's time was usually more or less adjusted to apparent time at noon each day, there was no certainty that the time of a message despatched from the ship or of an entry in the ship's log could be translated into Greenwich mean time. The conference was of opinion that the establishment of zones at sea (outside territorial waters) corresponding to the time zones on land is the most practical method of obtaining uniformity in time reckoning at sea; and after examination of the "Planisphère des Fuseaux Horaires" prepared by M. Renaud (of which a copy has for some time been displayed in the Map Room of the Society) it recommended the adoption of the boundaries of the zones as defined therein and now in use in the French navy. It also expressed a hope that those countries which have not yet adopted the system of hour zones will in course of time conform to this system. The question of summer time was considered, and the conference was of the opinion that there was no advantage in introducing summer time on the high seas.