

issues of the day. It was this extermination that made the Panama Canal possible, and has rendered Havana a justly favored health resort.

The acreage of unreclaimed and practically worthless swamp land in 1908, was stated by Hon. James Wilson, Secretary of Agriculture, to be 79,007,023 acres, and he estimated that reclamation would make these lands worth nearly \$1,600,000,000, and that the value of their annual produce would amount to \$273,000,000.

For the development of commerce, waterways play a most important part and the work done in this direction would fall in line with that carried on in drainage and irrigation. Our great natural waterways must be constantly supplemented, and their usefulness as channels of commerce must be increased. Nothing has so powerfully fostered the interior commerce of central Europe as the great canals uniting and extending the natural waterways, and in our own land we have striking examples of this. In such undertakings our citizen soldiery, with their special training, could be utilized in a way most valuable for the commercial interests of our land.

The great war has shown us what wonders scientific training can accomplish in destruction and devastation. Let us hope that the United States may continue to offer the world an object lesson of the value of peace arts, and that the magic wand of science may continue to be used by us for the works of peace, or, at the worst, for the defense of the freedom of our fair land against any and all ruthless aggression.

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#### SCIENTIFIC EVENTS

##### DECLINE OF GERMAN BIRTH RATE

THE Amsterdam correspondent of the London *Times* writes that although it is difficult to sift the truth from the reports which constantly reach Holland of increasing mortality

in Germany, there is enough evidence in them to indicate a decline in the national vitality. Apart from causes connected with the war, there are others affecting the birth-rate to which attention is drawn by the German press, which comments on the "shameless" extent to which recourse is had to artificial means of restricting the natural growth of the population. Strong measures, it would appear, are being contemplated by the authorities to counteract the fatal effects of a policy of calculated sterility. In addition there is an enormous falling off in the number of marriages. In Berlin the number of marriages has been declining; in 1915 there were 16,622, and in 1916 13,966. With this decline there goes a decline of births and a large number of deaths.

The Amsterdam Bureau of Statistics in its weekly report compares the vital statistics of several large German towns with those of Amsterdam for the 10 weeks from November 5 to January 13. The following table, compiled from the Dutch figures, will be found instructive:

	Amsterdam (Pop. 626,470)		Hamburg (Pop. 1,050,690)		Berlin (Pop. 1,798,962)	
	Births	Deaths	Births	Deaths	Births	Deaths
Nov. 5-11.....	255	126	179	403	387	744
Nov. 12-18.....	271	137	200	446	378	689
Nov. 19-25.....	259	143	118	422	415	736
Nov. 26-Dec. 2	279	131	196	417	370	715
Dec. 3-9.....	269	167	177	534	373	705
Dec. 10-16.....	281	177	149	461	383	780
Dec. 17-23.....	253	225	219	407	376	849
Dec. 24-30.....	331	243	204	474	376	853
Dec. 31-Jan. 6	237	159	169	363	394	619
Jan. 7-13.....	271	194	178	426	377	699

It will be observed that in one week, December 24-30, the number of births in Berlin was only 45 in excess of the number in Amsterdam, although the population is only 80,000 short of three times the size of that of Amsterdam.

Two other large German cities are included in the comparative statistics of the Amsterdam Bureau. They are Leipzig and Dresden. Leipzig has a population of 676,289, or 50,000 more than the population of Amsterdam. In the week ended November 5-11 the births in Leipzig were 108, compared with 255 in Am-

sterdam. In no week did the births in Leipzig approach within 100 those in Amsterdam. Dresden, with a population of 579,536, compared with Amsterdam's 626,470, had in the first of the weeks mentioned 118 births compared with 255 in Amsterdam, the deaths in that week being exactly the same—namely, 126. The highest number of births in Dresden in the weeks mentioned was 142 and the lowest number of deaths 103, while the highest number of deaths was 198.

#### ANCIENT DWELLINGS IN NAVAHO NATIONAL MONUMENT, ARIZONA

MR. NEIL M. JUDD, of the United States National Museum, has left for Arizona to supervise for the Smithsonian Institution the excavation and repair of prehistoric ruins and cliff dwellings. The work will be carried on under a provision in the Indian Appropriation Act, Interior Department, for the preservation and repair of the remains of ancient dwelling places of certain American aborigines in the Navaho National Monument.

According to a bulletin of the Smithsonian Institution the Navaho National Monument comprises three large ruins located in the northern part of the Navaho Reservation, in Arizona, about 175 miles by trail north of Flagstaff. There is a road for about a third of the way, but there is little traffic from its termination to the Navaho Monument. From there the way is difficult to travel also on account of the scarcity of water in the desert to be crossed, the lack of opportunity to purchase supplies, and the steepness of the ascent near the monument which is truly in the "High Rocks," as the Hopi designate the location of their former home.

The trip requires about five days, but the route is an interesting one, for it passes through Painted Desert, a picturesque country especially attractive on account of the native legends and descriptions relating to the surroundings. Superstition Mountain, for example, where, so the Navaho stories relate, fires are to be seen on dark nights, recalls the old Snake legend which claims that all this country once belonged to the Fire God, and that they inherited it from him. In the olden

days, so they relate, the inhabitants used to see lights moving around the mesas. Journeying over the recent lava beds and cinder plains to-day, it is easy for the traveller to accept the story of the early proprietorship of this burnt-out country, and attribute the fires seen there to volcanic eruptions and the glowing lava of years ago, which is quite enough to substantiate the legend. Among the fantastically eroded rocks, forming natural sculptures along the trail, are Elephant Legs, and White Mesa Natural Bridge, which lend interest en route to the Monument, as does also the Indian Village where still dwell descendants of the early inhabitants.

The ancient pueblo and cliff dwellings were first scientifically examined in 1908, by a party of which Mr. Judd was a member, led by Professor Byron Cummings, formerly of the University of Utah and now of the University of Arizona. They are supposed to be the ruins of dwellings made by the Snake people whose descendants live to-day in Hopi villages in northeastern Arizona. Some of the houses built in the cliffs are very large, measuring several hundred feet in length and include as many as a hundred rooms. Naturally, some of the original rooms are buried in fallen debris but their excavation and repair is to be carried out between now and the end of June, by Mr. Judd and his party.

The only human beings living in the neighborhood of these ruins is an Indian trader, and a few Navahos who are very superstitious. None of them will dig in the ruins fearing to evoke the wrath of the spirits of the dead, so Mr. Judd will be forced to engage white laborers at Flagstaff, probably six in number and a cook, relying on the native Navahos only for trail-making and the transportation of his supplies and building materials to the ruin where the work is to be done.

#### THE INDIAN SCIENCE CONGRESS

FROM an account in *The Englishman*, Calcutta, we learn that the fourth annual meeting of the Indian Science Congress opened on January 10 in Bangalore. A large and distinguished gathering of scientific men from