

an invention a year old or several years old. Second, the issue of patents drops greatly during and following an economic depression, such as that following the year 1929. Third, changing policies in the Patent Office produce unmeasurable changes in the number of patents allowed to issue.

In a normal year about one patent issues for every two patent applications filed, but in the year 1935, about one patent issued for every one and one-third patent application filed, most patents being based on patent applications two, three or more years old.

On the other hand, the number of patents issued varied little during the ten years from 1870 to 1880, although those years saw the invention of the electric motor, the telephone, the incandescent electric lamp and other important inventions shown in the Centennial Exhibition of 1876.

The number of patents issued each year by some other nations varies much more widely and more rapidly than in the United States. England, for example, issued about 12,000 patents in 1931, about 24,000 in 1930 and about 35,000 in 1933. It is obvious that the number of patents issued is an unsafe guide by which to measure progress.

The proportion of chemical patents issued each week in the United States has, in contrast, remained singularly constant for thirty years at about one in every fourteen of all patents issued. In other words, the curve of progress in mechanics must be nearly identical with the progress in chemistry if statistics of issued patents mean anything.

One further observation must be made pointing to the years 1914 to 1918, and that is to point the lesson of the cost of war. The asserted stimulus to chemistry due to war does not appear either in those years or in any showing of heaped-up and buried progress released to show itself at the end of the war. On the contrary, each year of war apparently set back progress more than the progress gained in a year of peace, and each year of war apparently added its set-back to the set-back of the previous year of war. It is evident that the much-boasted chemical progress whipped-up to meet war needs is trivial compared to the work-a-day progress in times of peace.

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POLYGONBODEN ON MT. DESERT ISLAND, MAINE

ANTEVS¹ has described both fossil and modern stone nets and stone stripes from the Presidential Range,

¹ Ernst Antevs, "Alpine Zone of Mt. Washington Range," Merrill and Webber Company, Auburn, Me., 1932.

New Hampshire, and from Mt. Katahdin, Maine, at elevations of 4,000 feet and higher. The authors have found modern stone nets and stone stripes on Cadillac Mountain and on Jordan Mountain, and Professor Edward H. Perkins, of Colby College, has found them on Sargent Mountain, Mount Desert Island, Maine. On Cadillac Mountain they were observed as low as 1,300 feet and on Jordan Mountain as low as 1,100 feet, which makes these the lowest described Polygonboden in the United States. The nets and stripes on Jordan Mountain are embryonic and vague but rather numerous. Those on Cadillac Mountain are in many cases well formed, as well formed as any the authors have seen on Mount Washington, besides being much more numerous. These structures are found in the small barren patches of more or less modified glacial till, sometimes admixed with disintegrated granite, which is still preserved in places. The average diameter of the nets is one to two feet and the stripes are from four to five feet long. These are undoubtedly being formed at the present time and are similar to the modern stone nets and stone stripes which Antevs has described. These structures are undoubtedly present on other peaks of Mt. Desert Island, and it is the intention of the authors to return and go over the ground more thoroughly with the hope of finding these features at lower levels, perhaps even at sea-level.

It is generally agreed that the conditions necessary for the formation of these structures are: (1) freezing temperatures; (2) correct soil conditions; (3) flat areas with slight slope and (4) barren areas. It may well be that the first three of these conditions obtain at sea-level in the Mount Desert area. However, barren areas are not common unless made by man. An examination of old sand and gravel pits might furnish some interesting data, and along this line it would be interesting to prepare some earth at sea-level to see if the Polygonboden would form. The authors spaded up one area which contained especially well-developed structures with the idea of returning to collect data on their rate of formation. The material in which the Polygonboden are formed often rests in rock basins, which condition makes for a high water table. This condition, together with the high precipitation on the Mount Desert mountains and the great number of barren areas, is probably responsible for the low elevation of the Mount Desert Polygonboden.

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"PETRIFIED WALNUTS" VS. CONCRETIONS

SEVERAL years ago Mrs. George W. Rust, who was then Miss Alce Ann Clark, student of the University