

self, and whose shop, in a small way, is a "literary centre."

But some clever Berlin dealers a few years since conceived the idea of offering publishers to take at one time a large quantity of each book on which they were sure of a large sale, the publishers, in consideration of the large number sold, to give a discount of 40 or 50 instead of the usual 25 or 33 per cent., at which rate they were able to sell the book at about the same price which it cost the small bookseller. By this arrangement publishers and dealers alike profited, but the old-fashioned retailer, of course, came to grief. Two years ago the publishers discovered that this was a short-sighted policy—that their sales through the large dealers in the end were smaller than they had been under the old plan, and 600 of them agreed to have no dealings with firms which dealt on this principle. On September 25, 1887, this boycott was strengthened by a resolution of the Book-dealers' Union hereafter to regard every dealer who gave a discount of more than 5 per cent. as coming under the ban. But though the local bookseller in Germany, thanks to these sharp measures, will die a more lingering death than his American brother, his doom seems to be just as certain.

The resolution of the Union, which we mentioned, has been unfavorably commented upon by the press, and the *Jahrbücher* article is largely a reply to these criticisms. The writer maintains that the prices of serious works are low enough, but admits that those asked for school-books and belles-lettres are too high. In defending these positions, the (anonymous) writer gives some interesting statistics, which, as the *Jahrbücher* is issued by a highly respected firm of printers and publishers, are, we suppose, trustworthy. Incidentally the exports and imports of Germany are compared with those of France, the result of which, in view of their political relations, is highly surprising. In 1885 France imported books, engravings, etc., to the value of \$6,400,000, and exported \$9,000,000 worth. But taking the trade with Germany by itself, the proportion was reversed, the importation being \$3,600,000, the exportation only \$765,000. The total German trade for 1886 was—imports \$6,000,000, exports \$15,530,000.

We get, too, some light on the pecuniary profits of authorship in Germany, though the writer apologizes to his brethren for telling tales out of school. It seems, then, that the cost of putting on the market a strictly scholarly work, of which the number that may be sold will not exceed 500, and assuming the author to be neither unknown nor famous, is: Composition and presswork for an 8vo volume of 320 pages, 500 copies, \$175, paper \$41.25, *author's compensation*, \$125, incidental expenses \$33.75; total \$375. Moreover, the author of a work of more popular character, which may be expected to sell 1,000 copies, or of a novel which sells 1,500 copies, gets no more for his labor; but the compiler of a school-book which is likely to sell 5,000 copies, gets the fabulous sum of \$150! The insignificance of the sums paid the authors of works of scholarship and fiction might be accounted for on the ground that so many works of these classes are published with a view to benefit the author's reputation rather than his pocket; but compilers of school-books do not usually work for "glory."

THE YELLOWSTONE PARK AS A FOREST RESERVATION.

WASHINGTON, January 2, 1888.

Of the varied beauties of the Yellowstone Park much has been said in praise. The

splendor of the Grand Cañon, the grandeur of the Lake and of those scientific curiosities, the geysers and hot springs, have been described over and over again until every one is more or less familiar with the natural marvels of this wonderland. Now that the once famous pink and white terraces on the shores of Rotomahana in New Zealand have ceased to exist, the similar deposits in the Yellowstone Park stand unrivalled. Notwithstanding all that has been written, based upon sentimental considerations, in favor of a maintenance of the Park by the general Government, the most forcible argument for its preservation is an economic one far outweighing all others in importance. It is one which has received but slight attention outside of a narrow circle of the friends of the Park who realize the true value of the region.

The object of first importance in maintaining the Park is the preservation of its forests. Forest preservation is rightfully attracting increased attention in all parts of the country, and it is now very generally admitted that a rigid enforcement of the proper restrictions in the cutting of timber is demanded for the public welfare. Owing to the many conflicting interests in the more settled communities, additional protection by legislation is by no means a simple problem. Nowhere is this better shown than in the struggle in New York State to preserve the timber of the Adirondacks against the encroachment of lumbermen.

The Park is a natural reservoir admirably adapted by its topographical structure for the storage of water. No region of equal area in the heart of the Rocky Mountains presents so many favorable conditions for receiving, storing, and distributing a liberal water supply. For the preservation of this water the dense forest which covers this region is of incalculable value. The central portion of the Park is a broad, elevated volcanic plateau between 7,000 and 8,500 feet above sea level, with an average elevation of about 8,000 feet; it is accidented by broad depressed basins and scored by deep gorges and narrow valleys. Surrounding it on the south, east, north, and northwest, are high peaks and mountain ridges rising from 2,000 to 4,000 feet above the general level of the enclosed table-land. Across this plateau from the southeast to the northwest, with a very sinuous course, runs the Continental divide, separating the waters of the Atlantic from those of the Pacific. Several large bodies of water, notably Yellowstone, Shoshone, Lewis, and Heart Lakes, form such characteristic features on both sides of this divide, that the country has deservedly received the appellation of the Lake region of the Park. Hundreds of smaller lakes occupy irregular depressions either in the lava flows or in shallow basins of glacial origin high up in the neighboring mountains. Scattered over the plateau, in striking contrast with the greater part of the Rocky Mountains, occur numerous ponds, marshes, and meadows, which hold very considerable amounts of water throughout the greater part of the year. More than 3,500 thermal springs bring up their waters from below to swell the surface flows, while innumerable cold springs coming out from beneath the rocks add their share to swell the current.

Careful observation of plateau, mountain, and valley shows that about 84 per cent. of the Park region is forest-clad. The bare portions of the Park are mainly areas above the timber line, steep mountain slopes, and wet marshy bottoms. The forest is essentially coniferous. A few groves of aspen (*Populus tremuloides*) add brilliancy to the autumnal foliage, but are so insignificant that from an economic point of view they may be discarded.

Quite two-thirds of the trees are what are known as black pine (*Pinus Murrayana*), and one may travel for miles over the gravelly ridges of the plateau without encountering any other species. On moist ground at high elevations, and where the snows lie later in the season, this species gradually gives way to the balsam (*Abies subalpina*) and the spruce (*Pinus Engelmanni*). Over large areas, of course, the three species occur more or less mingled. In a few favored localities the statelier tree, the red fir (*Pseudotsuga Douglassi*), is conspicuous by its size and vigor. The black pine rarely attains any great size, trees more than two feet in diameter being exceptional, while over considerable areas they are so diminutive as to be locally known as "lodge-pole" pine. The young forest is generally made up of shapely, graceful trees, but the maturer growth is not specially attractive. The charm of the forest is found in the natural groupings and park-like character of the trees in the more open country, many of those on the mountain slopes being of exquisite beauty. For grandeur and imposing appearance they are not, however, to be compared with those of the Sierra Nevada or Cascade Ranges.

Precipitation of moisture throughout the arid region of the Far West is governed in part by mountain mass and in part by the great altitude of single ridges. Across the Park plateau and the Absaroka Range to the eastward the country is unsurpassed in average elevation by any area of equal extent, and is so situated as to form one of the storm-centres of the northern Rocky Mountains. The moisture-laden winds coming up from the southwest precipitate rain and snow upon the plateau and the western slope of the Absaroka Range, innumerable streams bringing the water from the mountains back into the Park. In consequence, the climate of the region is exceptional, the amount of snow and rainfall being higher and the mean annual temperature lower than over the adjacent country. Unlike the greater part of the Rocky Mountains, heavy rains occur frequently through the summer, and snow-storms are of common occurrence any time between September and May, the snows lying upon the ground well into midsummer. The region is one of the nation's grandest reservoirs, sending its waters thousands of miles to both oceans. A closer examination of this water-supply shows its preservation to be a question of vast economic interest. Two rivers, the Yellowstone and Snake, carry off the greater part of these waters; the former draining more than one-half the area of the Park, and the latter the entire western side of the divide. Yellowstone Lake, the great reservoir for the river which gives its name to the Park, is a body of water of great beauty, measuring twenty miles in length, with a breadth across its greatest expanse of fifteen miles. It has a very irregular outline, with an indented shore of nearly one hundred miles, and an area of one hundred and twenty-one square miles. Not only is the Yellowstone by many times the largest lake in North America at so high an elevation above sea level (7,741 feet), but it ranks among the first in the world at high altitudes. Upon the western side of the divide, less than six miles from the Yellowstone, and separated from it by a ridge not more than two hundred feet in height, lie Shoshone and Lewis Lakes; the former with an area of twelve square miles, and the latter four and one-half square miles. Heart Lake, at the eastern base of Mt. Sheridan, measures three square miles. These reservoirs pour their waters into the Snake, which also finds its source near the southeast corner of the Park.

In the autumn of 1886, with a view of obtaining some data upon the amount of discharge, the largest bodies of water were accurately measured. Not only was the time selected the driest period of the year, but all lakes and streams stood at a lower level than at any time during the previous five years. Yellowstone Lake stood twenty inches below the high-water mark of early summer. The measurements may be said, therefore, to have been taken at the minimum discharge. Measured just below the outlet of the lake, the discharge of the Yellowstone River was found to be 1,525 cubic feet per second, or, in other words, 34,000,000 imperial gallons per hour. The outflows from Shoshone, Lewis, and Heart Lakes combined yielded 104 cubic feet per second. The Lamar, Firehole, Gibbon, and Madison Rivers were gauged, and careful estimates made of the Gallatin and Falls Rivers, based upon the size and flow of the streams and the area of the country drained. According to estimates of Dr. William Hallock of the United States Geological Survey, who kindly undertook the gauging of the streams, it was found that the minimum discharge was equal to one cubic foot per second per square mile over an area somewhat more than 4,000 square miles, and that the amount of water running into the Park and leaving it through the five main drainage channels would make a river five feet deep and one hundred and ninety feet wide, with a current of three miles per hour. While this may not indicate a large supply as compared with certain highly favored areas, yet it is for the arid region of the West an exceptional and excessive amount.

In an arid and sparsely timbered country and one of unequally distributed rainfall, forests and moisture maintain reciprocal relations. Experience has shown in Europe, and unfortunately already in America, the injurious effect of disafforesting a country near the headwaters of large rivers. One instance will suffice to illustrate this protecting influence of the forest. The report of the recent Forestry Commission of the State of New York says, speaking of the sources of the Hudson River, "that the summer flow of the Adirondack rivers has decreased within the memory of men now living from 30 to 50 per cent. Many of the small streams which a quarter of a century ago were abundantly supplied with water during the entire summer are now dry during many months."

Remove the forests from the sources of the Yellowstone and Snake, and the region would become a barren waste. The snows, under the scorching rays of the sun, would rapidly disappear, and early spring freshets and floods, carrying devastation before them, would strip the rocks bare of the meagre soil with which they are now covered. Under the influence of the forests the soil and vegetation are protected, which in turn act as a sponge, regulating the flow and slowly supplying the springs and streams. The climatic benefits derived from this forest-protected region can scarcely be overestimated. From the cool, wet surface of this broad storehouse of water, the dry winds coming from the West absorb immense quantities of moisture, which is again precipitated over the agricultural and grazing lands to the eastward. Not only should the present reservation be carefully guarded, but the area of the Park should be enlarged to the east and south, so as to take in a dense forest-region useless for agricultural purposes and destitute of mining resources. It embraces a rough and mountainous country abounding in streams, the real sources and feeders of Snake River, Yellowstone River and Lake.

The proposed increase extends the boundaries twenty-five miles to the eastward and nine miles to the southward of the present ill-defined limits, which were established at a time when the region had been but little explored. By this enlargement, not only the entire western slope of the Absaroka Range, with its mountain torrents flowing into the Park, but the timberlands near the heads of streams which run eastward (the waters of which drain into the Big Horn, an affluent to the Yellowstone), will fall within the protected area. To the southward, on the opposite side of the Continental divide, the country, although less rugged, is equally well supplied with streams, springs, and lakes, whose waters uniting make a broad deep river of the Snake before it fairly leaves the mountains for the plain below.

A proposition looking to the enlargement of the National Park has already been brought before the present Congress by Senator Vest of Missouri. No obstacles exist to-day against for ever setting apart this additional territory adjacent to the Park. If left alone, it will soon be invaded by the lumberman, charcoal-burner, and railway-tie cutter, the advance guard of a rapidly increasing population. The preservation of the Park is a necessity to the nation, but to no part of it more than to the Territories of Dakota, Montana, and Wyoming.

ARNOLD HAGUE.

CHAMBER AND PRESIDENT IN FRANCE.

PARIS, December 13, 1887.

THE third French Republic has already had four Presidents. The first three retired voluntarily before the end of their terms. M. Thiers resigned his power, in a moment of anger, in the hope that the Constituent Assembly would recall him immediately. Marshal MacMahon was protected by the constitutional laws enacted soon after his accession to office; he was irresponsible, and could play the part of a constitutional king. But when he dissolved the Chamber, with the consent of the Senate, in accordance with these new constitutional laws, the general elections were hostile to his Cabinet. He remained, however, a little longer in power, with M. Dufaure as Prime Minister; he might have remained to the end of his term if he had been willing to play exactly the part which is played in constitutional monarchies by the sovereigns, since the Constitution under which we live places the Presidential power above all parties. The Marshal could not persuade himself to obey in everything the dictation of his Ministers; he revolted when he was asked to exclude from active service in the army some of his old friends and comrades. The soldier was stronger in him than the President; he resigned, and M. Grévy was elected in his place. The new Constitution was this time put fairly on its trial. M. Grévy affected to take no part whatever in the politics of the day; he uttered no opinions, he seemed to have no opinion; he merely watched the Chamber of Deputies, and gave the power of forming a Cabinet to whoever could dispose momentarily of the majority of the Chambers. The struggle for power became very fierce, and the Cabinets were very short-lived. Every man was tried in his turn; the President seemed to live in a higher sphere. His retired life, his solitude, helped to surround him with a certain halo. He was thought to be a safe, prudent, shrewd man, who could use men at his will, who remained calm amid the conflict of passions, and he was especially credited for his adherence to a policy of peace, though he allowed the expeditions of Tunis and of Tonquin to take place. At the end of his first term, he expressed a desire to be

re-elected, and this desire was immediately obeyed by the Chambers, though he was becoming old, and there were already some men anxious to obtain his inheritance.

When M. Grévy was re-elected, nobody could have the slightest doubt that he would quietly end his second term, if he lived long enough. But fate had decided otherwise. I will not enter here into a painful analysis of the incidents which determined him to resign and to abandon an office which he might have kept five years longer. I will only examine the question from a constitutional point of view. The term "Presidential crisis" has been often pronounced in France in the past two months, and nobody seems to have felt its impropriety very much. People have used it as naturally, as they do the term ministerial crisis. A change of Ministers seems as natural an incident as a change of weather; a change of Presidents ought to be quite another thing. According to the Constitution, or rather to our constitutional laws (for we have, properly speaking, no Constitution), the President can only be removed from his office in case he commits acts which go under the name of high treason. There is nothing in the constitutional laws which gives the Chamber of Deputies the means to remove the President from the Presidential chair; but what have we seen in the case of M. Grévy? We have seen what can only be called a ministerial strike. M. Grévy offered the Premiership to one after another of the public men who are in the Chamber of Deputies, after this Chamber had upset the Rouvier Cabinet; one after another, these public men refused to undertake the formation of a new Cabinet. The Chamber of Deputies openly, distinctly, refused to give Ministers to the President.

There remained the Senate. Unable to govern with the Chamber, M. Grévy could go to the Senate, and as the constitutional laws do not give him personally the right of dissolution, he could ask the Senate to come to his help and grant him the permission to dissolve a Chamber of Deputies which refused him the means of governing. An appeal to the people, in such a case, seemed the proper remedy, and the only remedy. M. Grévy did not send a message to the Senate, and he made a mistake in not doing so, as, in such a crisis, everything must be made public. He contented himself with conversing with the President of the Senate and with some of his friends. The Senate, which is haunted with the memory of the 16th of May (when a dissolution was granted to Marshal MacMahon), which is also afraid of the Chamber of Deputies, and anxious to prolong its own existence, which at times is threatened by the Radical party, did not in this case defend its own prerogative and the prerogative of the President. There was hardly any struggle, any discussion. M. Grévy was made to understand at once that the Senate was not disposed to allow him the right to order general elections. It thus happened that though the Constitution makes him irresponsible, and gives him the right to form at his will responsible Cabinets, the President found himself placed in the impossibility of accomplishing the duties of his office. He was like an animal placed under the pneumatic pump, who dies for want of air. Irresponsible in theory, he became responsible in practice, and not even responsible for his own faults—for faults which he had not himself committed.

Those who still care for constitutional law must see that a dangerous example has been given. Let us leave aside the person of M. Grévy, and let us talk only of the Presidential power. The Chamber of Deputies has learned