

WHEN GRAN'PA WAS YOUNG.

(A Boy's Thanksgiving.)

My gran'pa 'lowed ole Satan's curse
Had fell upon creation.
An that the world was gittin worse
With ev'ry generation.
"Wy, when I was a boy," said he—
An then he'd tell some story
That allus made him out to be
An angel crowned with glory.

A tinker came Thanksgiving day
To mend the pots an kettles.
An in addition to his pay
He et his fill o' vittles.
While gran'pa sot an talked around
Of one thing an another
Until the two ole felluz found
They 'ust to know each other.

They gassed along an hour or more,
Not knowin I was layin
A listenin behind the door
To all that they was sayin.
An never was Thanksgiving day
So full o' real thanksgivin
As when I heard my gran'pa say:
"By cracky! that was livin."

WILLIS B. HAWKINS.

"D'ye mind the times," the tinker said.
"We licked the district teacher.
An tarred the Watson baby's head.
An rotten-egged the preacher."
D'ye mind the night we stole the brine
An poured it in the melons.
An hung the undertaker's sign
Jest under Doc McClellan's?

"An, say, d'ye mind the Sunday night
'Twas blowin so, an sleetin.
We stuffed the ole church chimney tight
An smoked 'em out o' meetin?
An then, the time we bored the wood
An loaded it with powder.
An no one ever understood
What blowed the stove to chowder."

food, the necessary conditions are already present for the most remunerative returns at a moderate outlay. As to the advantages of irrigation in general—a method by which one can control his water supply, in effect the rainfall, being able to supply the growing crops with just the amount necessary for their rapid growth and maturity at the proper time—there is no question whatever. Irrigation, in fact, insures abundant crops to the full capacity of the land under cultivation and not alone one year in a series, but any and every year. It also increases rather than decreases the productive capacity of the soil and destroys many insects injurious to vegetation. It produces almost perfect grains and fruits, the yields of irrigated soils, as is well known, surpassing all others of their kind for size, though perhaps not for flavor. It insures good health to the farmer or horticulturist, as he is not obliged to toil in a scalding sun or expose himself to the extremes of winter temperature. It permits of the bunching of farms and dwellings, so that the farmer need not isolate himself and family from all others of his kind. It enables a given area to support the densest population, and finally, though the list of advantages has not been exhausted, it enhances the value of the soil and causes it to yield the largest returns of which it is capable.

Water, indeed, has become the solvent of the western farmer's woes, and he also has the satisfaction of knowing that its application to agriculture is by no means in the experimental stage. If we were to search for the beginning of irrigation, we might go back to the first known attempt at agricultural operations and bring up in the veritable garden of Eden, for the conjectural site of Adam and Eve's paradise was within the irrigable area of the east, where operations of this sort have been carried on for unknown centuries. It is known that the Egyptians practiced irrigation before the pyramids were built; also that the Arabians, Assyrians, Chinese and Italians have long been accustomed to raise their crops by the application through canals, ditches, etc., of water taken from rivers, wells and lakes.

Irrigation may be of equally ancient origin in America for aught known to the contrary, for when the Spaniards conquered Peru in the sixteenth century they found an elaborate system of canals conducting water to every part of the Inca's empire. When Cortez crushed the Aztec empire in Mexico, he destroyed another system of irrigation works which would have done credit to his own countrymen. The Spaniards, again, derived their knowledge of irrigation from the Moors, and the writer has himself examined the perfect ar-

range of "acequias," as they call them, as they at present exist in the province of Granada and existed at the time Ferdinand and Columbus signed a contract for the discovery of America. The same names and the same methods were applied by the Spaniards to their operations in California, and more than a hundred years ago the mission fathers raised immense crops of wheat, barley, etc., by pursuing the systems of their ancestors in the mother country—Spain. The Pueblo Indians of Arizona and New Mexico had "acequias" when they were discovered by the Spaniards, more than 300 years ago.

The first pathways of civilized man in America may be traced along the coasts and rivers, which were, of course, the first to be brought under cultivation, and it was many years before the mountain boundaries were broken down and the vast and fertile plains of the boundless west opened to occupation. But in the process of development even these have been fully occupied, and an ever increasing population is clamoring for new agricultural worlds to conquer. It is only 15 years since the Mormons gave the impetus to recent irrigation in America and set an example for others to follow when they turned up the arid alkaline soil of the Great Salt Lake valley and planted their scanty stock of potatoes, looking to a crop that might save them from starvation the following year. They were probably taught by the Pueblo Indians how to pursue the very best methods, and others since have benefited. Their success in making the wilderness blossom with fruitful gardens and farms and in establishing homes in what was then an arid desert has been a constant incentive and reminder to their neighbors. Intelligent co-operation has been their guarantee of success, and this has been followed in many colonies attempted since, notably in the Greeley colony of Colorado, the beauty and value of which were created by public spirit and enterprise combined. What these colonists have done others may do. But it is argued that these had the pick of the unoccupied lands and that the present arid areas are too vast and sterile to be attacked even by communal co-operative effort; in brief, that they need the

contented human beings. Some of their works, in fact, are monumental, as, for instance, the gigantic dams and reservoirs they have built and the hundreds of canals and conduits they have constructed for bringing water from the mountain ravines through barren, burning deserts to create blooming paradises as abodes for prosperous families.

Many great works might be cited, but as an example of an engineering feat accomplished after great expenditure of money and labor take the great Sweetwater dam in San Diego county, Cal., which cost in round numbers about \$1,000,000. It was considered one of the finest in the country and impounded one of the most attractive sheets of water in California. At its maximum height of 70 feet the water in the artificial lake created by this dam across a ravine covers 731 acres, with a storage capacity of nearly 3,000,000,000 gallons. It has a neighbor in a near county, the Bear Valley dam, which at its maximum height of 60 feet covers 2,512 acres with water and controls 21,000,000,000 gallons. Another (the Merced reservoir) covers 800 acres and stores about 7,000,000,000 gallons. The cost of a dam or reservoir, if rightly located to store water for an immense area, is insignificant when compared with the enhancement of values of the lands.

Of the various sources of irrigation, such as rivers, lakes and artesian wells, the first two are directly and the last indirectly dependent upon forest conservation for continuous service. One of the most beneficent acts of legislation in the opinion of many qualified to judge was that by which the unoccupied mountain and forest lands owned by the government were a few years ago withdrawn from sale and made permanent tracts of the vast national domain. The purpose of this act was, as already mentioned, the conservation of the forests in danger of destruction and the consequent protection of the springs and streams within their boundaries. Its wisdom is already manifest, for the Yosemite National park, for example, this wonderland was set apart by congress as a national reserve in 1890, the latest to be added to the list being the region around Lake Tahoe, San Bernardino mountains and San Gabrielle. With an area of about 1,400 miles, in the

THANGSGIVING HABIT

A NATIONAL TRAIT.

It should be a matter of gratulation that as a nation we have fallen into the Thanksgiving habit instead of the opposite, that we have augmented our feast days and reduced the number of fast days. When we come to look around the world and note the many peoples who have increased their days of lamentation and fasting, while we have Thanksgiving days, if they ever had any, have become almost obsolete, we should rejoice and be exceedingly glad. Not that we should take pleasure in other people's troubles, but that we ought to rejoice that our joys have more than kept pace with our sorrows.

It is well known to all that the first to "set the pace" in America, so far as we can tell, were the so-called pilgrim fathers, when they ordained a day of Thanksgiving for their abundant crops the year after they made that historic landing on Plymouth Rock. As their condition might be regarded at the present day, they had small cause for rejoicing, except in a negative way, for starvation was not far off even after their crops had been gathered, and when they went to church to offer their praises to the Almighty of all good they had to take their muskets along for a chance "pot" at the "humane savages" lurking in the adjacent forest.

In fact, it was not so much for what they had as for what they had not that the pilgrim fathers offered thanks. Among the negative causes for thankfulness one old writer mentions his narrow escape from the pestiferous "squunk," a small animal that frequented the woods and highways and wore a livery of black and white. Another was overjoying with rejoicing because he had at last "tasted a sup of New England ayre," which he declared almost as rejuvenating as the waters of the famous fountain of youth which Ponce de Leon had vainly sought a hundred years before.

But, according to historical annals, the very Indians of New England were imbued with the thanksgiving habit, and their annual feast, or green corn dance, may have been performed for centuries previous to the coming of the pilgrims. Not that we would depreciate their endeavors in this direction, however, for, while the Indians may have had a periodical event of that character, they never succeeded in getting it universally observed. Our forefathers probably thought it more conducive to success to count their blessings than recount their sorrows, and it is well for their descendants, and others who have since migrated to this country, that they viewed the matter in this eminently sensible manner.

The trouble with the pilgrim fathers was that they imagined they owned a copyright or had a patent on Thanksgiving day because they were the first to inaugurate it in America, but the records show that, while their obnoxious Dutch neighbors of Manhattan did not adopt it until some time after, yet their countrymen in Holland had observed a similar ceremonial as far back as 1575.

In a desultory way Thanksgiving day was observed in the colonies every two or three years—that is, the citizens of any particular county or township that had been blessed with overflowing harvests would get together and offer thanks for their favors, at the same time deprecating those who did not also come forward with alacrity to acknowledge the bounties of beneficent Providence.

As to the motive for the Thanksgiving festivals, it depends somewhat upon the point of view. For example, when General Washington announced the first national Thanksgiving in recognition of a return of peace after victories over the British and the adoption of a constitution for the United States in 1789, it is quite likely that a certain king across the water, or, to be exact, George III, was not enthused with the idea.

A proclamation of Thanksgiving was issued by President Madison in 1815, at the close of our second war with Great Britain, but it was not until "Honest Abe" was in the presidential chair, in 1864, that the festivity took on a really national cast and was universally adopted as a legal holiday throughout the length and breadth of the Union. For quite a generation of time, now, the American people have been celebrating the recurrence of the last Thursday in November as a day of Thanksgiving and prayer, and it certainly looks as though they have more cogent reasons each year for the continuance of the festival. Thanksgiving, in fact, is perhaps our sole anniversary of national character that does not appeal to some special sentiment, as selfishness or patriotism, lament for the dead or pandering to the living, and can be universally observed without heartburnings or narrow minded motive. To the bountiful

benefactor of the Universe, most assuredly, all can join in offering thanks for some favor received. If for nothing more, we should be thankful that we live at the present time, in the age of electricity and steam, when the powers of the earth and sky have been harnessed to do our bidding, when the cumulative products of all centuries past are forced into our service, when, even though the rich may be richer, the poor are better off in general than at the beginning of this century. Universal brotherhood is admitted, the worth in man is acknowledged, even if the individual is sometimes oppressed. It is a great advance to have humanitarian sentiments recognized as they are today. The next great step will come when they are included in the body politic, and nothing else will so hasten that event as our national Thanksgiving.

A. M. D.

OUR NATIONAL FOREST RESERVATIONS

A Plan to Reclaim Vast Tracts of Arid Land.

IT IS characteristic of the restless, ambitious American to seek an outlet for his surplus energies, either in wrestling with some great moral question or combating the forces of nature. Since the very beginnings of our settlements, since the first attempts at planting colonies on the Atlantic coast of what is now United States territory, he has fought against and overcome the most gigantic physical obstacles and, incidentally, settled, off hand, as it were, questions of government, equity and diplomacy that have arisen in his triumphant march from ocean to ocean. Viewed in its larger sense, then, the ninth annual session of the national irrigation congress, just held at Chicago, is an event of great importance. Without any cognizance of the personal aims and ambitions of its members, it may be asserted that the mere keeping of the subject before the people, the retention of it in the public mind as a question of national significance, will ultimately inure to the vast benefit of the country at large. More than 40 per cent of our area, it was asserted at a previous meeting of this congress, supported only 6,000,000 inhabitants, when, if judiciously watered, it could easily sustain at least 70,000,000. We expend millions every year in rebuilding levees, repairing the losses occasioned by floods and striving, as the saying is, to stop at the spigot what is really wasted at the bung. It has at last become apparent to farsighted Americans that the proper mode of procedure is to go right to the source of supply and there control in their inception what would otherwise prove devastating floods and deluges.

A glance at the charts issued by the last census will show that the most densely populated areas of the United States lie in those of the greatest rainfall, and, though this fact may be affected by the question of accessibility, still it is only in a modified form. The relative values of farm lands also show that, while in the sections of greatest rainfall and those where irrigation is already established lands may be worth \$5,000 and more per square mile, in those containing the so-called arid sections they are rated at \$100 per square mile or less—in fact, as practically valueless. Since the completion of the census of 1890, with its suggestive facts and figures, the people of the United States have done a great deal of thinking and, having come to the conclusion that what is beneficial to a few millions of the nation's people is also beneficial to all, have through their representatives in congress authorized a national recognition of the subject of irrigation. Congress has made tentative appropriations, as well as granted tracts to the several states, and the department of agriculture has rendered valuable assistance in experimentation through the medium of its trained specialists.

It now appears in fact that the dreaded bugbear of the transcontinental pioneers, the Pacific "forty-niners" and their successors—that "great American desert"—will soon become a thing of the past. It has been a fugitive for several years, as new states and territories have been sited out and filled up with hardy inhabitants, and now the irrigators have got it on the run and seem likely to chase it into its hole. In fact, the "great American desert" is destined to vanish utterly from the earth, and its epitaph, already written in advance upon its tombstone, will be, "Water did it!" Water can do it, and the witchery of water will transform the sterile tracts into fertile farms and cause the desert to blossom as the rose. What it can do has already been

shown in those states where it has been applied within the past few years. The writer remembers a trip he once took across the southern section of the arid region about 20 years ago, when the barren sands radiated heat like a furnace, and it seemed impossible that any living thing could endure it. On a sub-

known the world over that never since the art of irrigation was discovered and applied have such magnificent results eventuated as from its application to the parched soils of otherwise uninhabitable regions.

Nature never does anything by halves or without a reason. In other words, a divine purpose is manifest in every process—in every accumulation of coal, in every subterranean storage of petroleum, in every hidden deposit of gold. At the right time, and when most need-

sequent trip across the same section he suddenly became aware of a change in temperature, the shimmering sands were exchanged for dusky glades, the murmur of waters filled the air, and on every side was blossoming vegetation. All had been accomplished in the space of a few years by the mere boring of artesian wells and the planting of trees and flowers in the irrigated soil where before it was impossible to raise a single shrub in the terrible and continuous heat.

The arid region of the United States is popularly supposed to comprehend Arizona, southern California, Colorado, Idaho, Montana and New Mexico, the portions of Oregon and Washington lying to the east of the Cascade range, Utah and Wyoming. The extent of arid area is computed at about 900,000 acres, and if it were made a billion a few years ago this figure might not have been excessive, since much of it is of a nature precluding accurate survey. At least two-thirds of this area, it has been estimated, is available for irrigation and much of the remainder can be utilized for forest conservation and the building of vast storage basins for the waters of rivers, that would cause great destruction if their spring floods were uncontrolled.

Not less than half a million acres have already been brought under irrigation and made to yield their wealth of fertility that for uncounted centuries lay dormant in the arid soil. Space would be lacking to enumerate the thousands of individual and communal efforts at irrigation, and even the notable transformations of great states like California, Idaho, Wyoming and Utah must pass unnoted. These instances have become known to all, and it would be a work of supererogation to cite them in this connection. But it is

ed, nature's treasures come to light. And so it may be said of irrigation: Where water is most needed to develop the latent resources of the soil, there we find just the right combination of soil and climate to yield the richest results. With a high temperature and consequent absence of cold throughout the year, with a volcanic soil or one in which are soluble in water and convertible into the richest sort of plant

JUST LITTLE PICK UPS.

The contractor who built the city hall at Denver is now selling cigars and tobacco at a stand in the corridor of that building.

Sabetha, Kan., has a citizen named Andrew Henejar. Naturally, no one ever calls him by his last name—he is simply known as Andy.

The total cost of the Pan-American exposition, exclusive of exhibits, is now

estimated at \$10,000,000. Of this amount about \$3,000,000 will be expended upon the midway. The midway will thus represent more than the total cost of some very pretentious exhibitions held in former years.

A scientist says a sigh is due to worry, but that a deeper cause is a lack of oxygen.

The Greek lepton, which is worth

about one-tenth of a penny, is the smallest coin now current in Europe.

During the present century 400 human lives, \$125,000,000 and 500 ships have been lost in fruitless efforts to find the north pole.

Attention has recently been called to the fact that, while the men of the Russian royal family up to the present czar have all of them been of unusually strong build, and many of them noted for their strength, the only one since

the time of Peter the Great who may be said to have reached a ripe age is the present Grand Duke Michael, the sole surviving son of Nicholas I, who is now 68 years old.

One of the remarkable things about the late Max Muller was that he never employed a stenographer or a typewriter and wrote all his life a clear and legible hand. Another interesting fact in his life was that he ardently desired in his youth to follow the study of music, but refrained because deafness was hereditary in his family, and he feared it might come upon him in his prime and injure his usefulness as a musician.

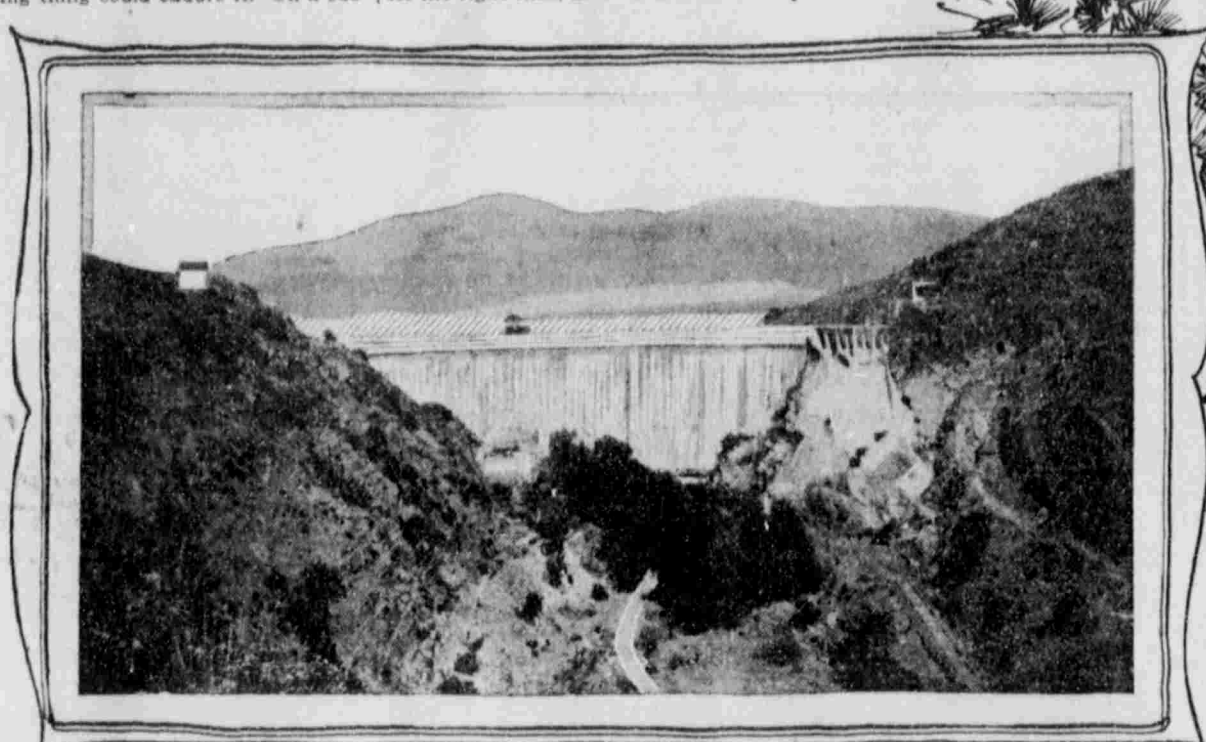
A notice which was recently posted in a West Kensington (London) church informed the public that five pews were for sale, and that said pews were "especially desirable" because "the contributions plate had passed to them."

Emperor William of Germany has given 50,000 marks toward the building of the Lett society proposes to erect in a Berlin suburb as a model house for 2,000 young girls, who will be instructed there in bookkeeping, housekeeping, photography, etc.

A manufacturer of paste jewelry at the Paris exposition says that the best customer he ever had was the shah. That shah bought quantities of genuine jewelry for the princesses, his daughters and their mother, but he thought imitation jewelry good

enough for the lesser lights of his harem. The quantity he took to Persia was enormous.

Colonel John M. Brooke, who designed the John Merriman and thus revolutionized marine warfare, is still living at Lexington, Va., and is professor emeritus of physics in the Virginia military institute. He is now 73 years old, but is still vigorous, and walks from his room in the outskirts of the city to the postoffice every morning.



SWEETWATER DAM NEAR SAN DIEGO



NEVADA FALLS IN THE YOSEMITE



EL CAPITAN, MERCED RIVER AND

BRIDAL VEIL FALLS



IN THE SAN GABRIELLE RESERVATION

intelligent supervision of Uncle Sam and his powerful arm to save them from disaster.

However this may be, the great irrigators have good reason to point with pride to their achievements, to the obstacles which they have overcome, to the innumerable products they have raised and shipped and to the sections they have rescued from desolation and made into Eden dwelling places for

very heart of the Sierra Nevada, the Yosemite includes at least 20 snow-capped peaks among its lofty mountains, hundreds of beautiful streams and lakes, glorious waterfalls, immense groves of gigantic trees, gorges, canyons and valleys, in which there is a great diversity of vegetation. It was such a fine grazing ground that the sheepmen, mainly Mexican herders, drove vast flocks into this region every spring. These not only ate all the grass, but destroyed millions of shrubs and young trees by browsing. When they went back to the lowlands in the fall of the year, the herdsmen would set fire to the forest and thus complete the work of destruction.

One of the first things done after the acquisition of the Yosemite as a national park was to establish there a troop of United States soldiers, the commander of whom was de facto superintendent of the reservation, with authority to arrest and expel every intruding sheep herder, with his flocks. The result is shown in the returning beauty of the park, which is now carpeted with flowers, small trees and shrubs, where before the soil was so denuded that it was almost absolutely barren. It is not claimed that the soldiers are altogether a benefit, since they assist the Indians in depleting the streams of fish, but in the main they have been of great value.

Forest fires no longer rage, endangering the lives of visitors, springs are again welling forth from the hillsides, the small shrubbery retains the snow and prevents floods caused by rapid melting in the spring, and the rivers are affected favorably. So, take it all in all, the experiment of protecting the forests and at the same time conserving vast pleasure grounds for the people has proved an unqualified success.

FREDERICK A. OGBURN.