

TO HOLD OUR RIVERS.

PROJECT TO KEEP MONTANA WATERS OUT OF CANADA.

The Proposed Improvement Will Add Thousands of Farms to the State—Expensive But Profitable Work.

The engineers of the water supply service in Washington are preparing plans with the approval of the secretary of the interior, for keeping our rivers in northwestern Montana from overflowing into Canada instead of emptying at home as they should do.

Careful study of the problem has shown that it is feasible to control the waters so that they may be spread over the arid plain of northwestern Montana east of the Rocky mountains.

The average size of the irrigated farms in Montana is 100 acres, and this proposed improvement will add about 3,000 farms to the state and increase the acreage of its irrigated lands about one-third.

Most of our rivers rising on the western side of the Rocky mountains carry their waters into the Missouri or other tributaries of the Mississippi.

Two important streams, however, rising among or near the snows of the Rockies, some way south of the international boundary, meet barriers of great debris after they have started on their eastern course and are turned to the north into Canada.

One of them is the St. Mary river, which enters Alberta and finally reaches Hudson bay through the Mackenzie.

The Canadian North-western irrigation company is now diverting its waters to the adjacent dry plains of southern Alberta and much land is being turned into fertile fields.

The other stream is the Milk river, which is more patriotic than the St. Mary, for after circumventing the natural barrier by entering Canada and flowing eastward through parts of Alberta and Assiniboia, it turns homeward again and joins the Missouri.

The Canadians as yet have turned very little of its waters over their plains, for the reason that it flows there between high and steep banks and can be lifted to the level of the plain only by expensive pumping; but they are awake to the possibility of using the water that now escapes them, and plans to this end were being made last winter.

The plan our government proposes to carry out was devised by Engineer C. C. Babb. A canal will be dug tapping the St. Mary river a short distance below the chain of St. Mary lakes into which the mountain drainage is collected.

A large dam at the mouth of the lower lake will turn it into a storage reservoir, and the canal will carry its waters eastward into Spider lake, one of the sources of the north branch of the Milk river.

Spider lake will also be made a storage reservoir, and the mingled waters of the two rivers will then be led along the canal almost due south to the southern branch of the Milk, which will be tapped in its turn, and practically all the water of the two systems will be led along the plain some 50 miles to the east, turning a wide strip of land on either side of it into fertile fields.

The cost of the whole work is estimated at nearly \$5,000,000. The land to be reclaimed is now worthless.

It is fair to assume that the farms thus created will have the same value as other irrigated lands in Montana, or an average of \$3,375 a hundred acres. At this rate the increment to the wealth of the state from these new agricultural lands will be \$19,000,000 a year and not less than \$20,000,000 to live stock, or a total of \$39,000,000 brought into existence by an irrigation enterprise costing one-sixth of that sum.

The yearly income from irrigated lands in Montana is about \$25 an acre in products fed to live stock or sold to the markets. The annual income from the new lands is, therefore, expected to be about \$2,750,000, or much more than the estimated first cost of the work.

What will the Canadians say about the enterprise? They are already profiting by some of the water, and are preparing to use more of it; but it would cost them more than it would us to get the same value from the water, because the Milk river, in their territory, is from 20 to 40 feet below the general surface level.

There is no international commission to control these little rivers, as in the case with the great Danube; and no nation has ever been known to abrogate the right to use as much of it as pleases of the water originating in its own territory.

Of Great Durability. The durability of ivory is proved by the fact that billiard balls, which for the sake of curiosity have been made of well-preserved mammoth ivory unadmittedly many thousand years old, were played with for several months by experienced players without its being noticed that the balls were not made of ivory. Mammoth ivory is, as a rule, not as tough as fresh ivory.

New Foliage. "Our family tree has lots of new limbs on it now," said the member of the family.

Within the past three years six of our connections have eloped with chorus girls.—Julia.

SCHOOLS IN JAPAN.

EDUCATIONAL SYSTEM COMPOSITE OF EUROPEAN SYSTEMS.

Thoroughly Organized and Carefully Supervised by Heads of Departments—Wonderful Progress.

The main features of the Japanese system of public education have been borrowed from western nations—from Germany, from the United States, and particularly from France—but in combining these detached parts the government has shown the same genius for organization and direction as in the creation and control of its army and navy.

Thus, says Education, the superior council of education, which plays an important part in the administration of that interest, is modeled on the French superior council; but unlike the latter, its membership includes the chiefs of other administrative bureaus, so that education is directed in full view of the interests of the commerce, of the agriculture and the internal economy of the kingdom.

So also in respect to manual training, which has great recognition in Japan; though the general idea and method are copied from the west, there is no servile imitation in respect either to the tools employed or the exercises followed. Only that is taken which can be skillfully adapted to native conditions and demands.

The system of education is thoroughly organized and carefully supervised. The minister makes frequent inspection tours for the purpose of seeing for himself the manner in which the education laws are carried out, and specialists from the Tokio university, the higher normal schools, etc., are from time to time sent out to report upon the manner in which their special subjects are taught, and to suggest improvements in the methods or standards.

These tours are quite independent of the regular inspection service, which is entrusted to men of approved qualification and distinguished rank, who are held to strict account for the discharge of their duties.

Education is compulsory for children between the ages of 6 and 14 years, or until a prescribed course of study is completed, which may be done in four years. Following this limited course of the "ordinary elementary school," which includes morals, the Japanese language, arithmetic and gymnastics, with a choice of one or more subjects—drawing, singing, manual work (for girls, sewing)—according to local conditions, there is a higher elementary school course extending over two or three or four years. The total number of elementary schools reported for 1902 was 27,010, the number of teachers employed in them 102,790, and the number of pupils enrolled 4,980,604.

As the total number of children of legal school age was 7,498,179, it will be seen that the enrollment was equivalent to 67 per cent of the school population. For the training of teachers for the elementary schools the government maintains 54 normal schools, having in 1902 1,022 teachers and 17,982 students, and two higher normal schools, having 118 teachers and 860 students.

While the government has been thus steadily extending the means of popular education, it has made liberal provision for higher education, including under that term the very ample provision for general culture and research in two imperial universities, and in special schools intended to prepare experts for the service of the state. There are eight of these schools supported by the government and under the charge of the minister of public instruction of which five are schools of medicine, and the remainder as follows: The Tokio foreign language school, the Tokio fine arts school and the Tokio academy of music.

Besides the government special schools there are four public and 455 private schools of similar character. The University of Tokio includes all the facilities recognized in western universities except theology. The college of science and engineering has ample equipment for instruction in chemistry, pure and applied; in mining and metallurgy, in civil, mechanical and electrical engineering. The nine technical schools supported by the government include the Sapporo agricultural school, the higher commercial school and three institutes for the training of technical teachers.

It is worthy of note that whereas 25 years ago Japan depended almost entirely upon foreign countries for its supply of professors and teachers, it is now able to recruit the teaching service from native scholars. The number of foreign instructors reported in government schools in 1902 was 66, of whom the United States furnished 12, England 15, France 5, Germany 22 and Russia 2. The actual expenditure by the government for education in 1902 was 6,228,000 yen (about \$1,782,660).

Was Reassured. "I was spending a few days in Strathaven, Scotland," said Robert B. Mantell. "At the inn where I was stopping I met an old couple who were preparing to visit the United States. Naturally enough, they questioned me as to some length about the trip, and the old gentleman was anxious to know if it was very dangerous to cross the ocean. I assured him that it was not at all hazardous, although it was often very rough. His sister listened intently and then remarked, with a sigh of contentment: 'Awful, awful, it's been a gay dry summer, and I think the sea'll no be vera deep.'—London News.

About the Size of It. "What is the secret of true happiness?" asked the Ludlow youth.

"The secret of true happiness," replied the Cumminsville sage, "is to have a hat you want when you want it."—Cincinnati Enquirer.

DOCTORS FOR DOGS.

SKILLED PHYSICIANS MAINTAIN HOSPITALS FOR BRUTES.

Take Preliminary Courses in Training Colleges to Fit Themselves for Caring for the Canines.

Are Chicago children treated like dogs? A good many are not. Not as well as some dogs, especially sick dogs, that are often made sick by being treated too well, have too much to eat, too many caresses, don't get out enough, or have exercised enough, are shut up in steam heated houses, and have exactly the same diseases as their owners do, reports the Chicago Tribune. There are enough of them to keep special doctors busy and maintain special hospitals for them. One on the North side goes by the name of "human" doctors, as the animal doctors call their professional brethren who take charge merely of human beings. A successful animal doctor needs as thorough training as a "human" doctor. Some take preliminary courses in ordinary medical colleges, and special ones in veterinary institutions afterwards. European institutions are more thorough than those in this country. Here the courses are subsidiary to general medical practice. There they are systematic and independent.

The owner of a \$1,000 dog naturally does not spare expense when he thinks he is in danger of losing him. And when the owner of a pet thinks enough of it to spend no inconsiderable time feeding it, and playing with it, and going out to walk with it, and letting it drag him all over the sidewalk and gambol, he naturally does not hesitate to call in a doctor when it has a cold or a fever, or is "off its feet" for any reason, and is "grumpy, sullen or snappy." The doctor is even called up at night, like the "human" doctor, to treat sudden attacks.

In some respects the sick dog is harder to treat than a human, because his symptoms are not so specific and described by language. But the doctor gives exactly the same remedies as he would to the owner. Most of this kind of practice is found among the rich, as they can best afford the dogs that are considered worth so much care and expense, but among those not so able to afford such luxuries dogs are frequently kept for companionship and protection, and are subject to catch human diseases, being confined and pampered almost as much as the dogs of the rich. And the doctor is called to them.

The most pampered of the dogs are owned by the childless, who devote themselves to the care of their pets, and are as nervous and as anxious and send for the doctor as often and as hurriedly as a "human" mother does. There are some valuable and valued dogs that are brought into families as toys would be for the amusement of the children. These often grow into the affections of the whole family, and when one of them is ailing the doctor is sent for as much as though one of the household needed him.

A dog's hospital on the North side is not as palatial or imposing inside or out as a "human" hospital. But so far as cleanliness and thorough management is concerned it challenges comparison with the best. It is claimed to be more sanitary than most homes, even the most elegant. The operating room has all the various protections against bad conditions of the more pretentious "human" institutions. Cement floors, enameled surfaces, porcelain bathtubs, with hot and cold water, and all requisite anti-septics are provided. On two sides of a long narrow room is the hospital ward. On each side stretch a dozen "rooms" for the patients, steam heated and kept the year round at a temperature of 60 degrees. Each room is open at the front, across which is a strong wire netting. There is bedding at the back, separated from the "parlor" by a partition coming half way up. The inmate always respects the cleanliness of his bedroom when it is thus separated from the rest of the apartment. To keep the patients warm and well fed is the first principle for recovery. Under these circumstances they seldom growl or bark, especially the high-bred ones. One can almost always detect a "cut" mixture by the whimpering and barking.

Equal care is given to the food and preparation. Meat, bread and boiled rice carefully selected and cooked are the chief articles of diet. There is room for 30 patients and the hospital is generally full. Its clientele is not confined to Chicago by any manner of means. Dogs from all over the United States may frequently be found there—hunting dogs from Florida, pets from St. Louis or Green Bay. To-day a patient will be operated upon for tumor, to-morrow another for paralysis caused by being run over in the street. If the X-ray shows the spine unbroken the patient is etherized and the injury relieved, with almost certain recovery.

Fired by Snow. A snowstorm started a fire on the premises of a Belgian farmer. He placed a quantity of kerosene near a shed on his farm, and left it there all night. In the course of the night snow fell on the lime, and the heat thus developed became so great that the shed was set on fire, its contents being completely destroyed.

She Was Masked. Miss Passay—You weren't at the ball last night.

Miss Pert—No; were you? "Yes," and Jack Dasher said I was the youngest looking girl there.

"I didn't know it was a masquerade."—Fort Worth (Tex.) Review.

Bure Pop! Self-conceit is self-deceit.—Chicago Tribune.

FRUCAL MEXICAN INDIANS.

They Are Trained from Childhood to Habits of Industry and Thrift.

Imagine a poultryman who carries his chickens to market on his back, or an orange grower who trots behind his pack train of burros three days and nights of each week to deliver his product in the city on Sunday, says the Los Angeles Times.

The speed with which the Mexican Indian accomplishes these long journeys is astonishing, but comes from early training. When a boy reaches his tenth year his father undertakes his education. He is given a new belt or sash and new leather sandals and clad in shirt and trousers of spotless white "manta" he follows his father out of the little valley which has been his home.

His pack is only a small canteen of drinking water, while his father, strapped to his back a crate of peaches and a jar of wild honey. They cross rough mountains and deep gorges, speaking no words and never varying their pace from a slow regular trot.

The sun strikes pitilessly from a cloudless sky and the little clumps of shade seem but placed to torture those who cannot stop.

A pause is finally made in the bed of a canyon, where a little water trickles from the side of a rock to keep itself in a wilderness of boulders and sand. "Wash your mouth, but do not swallow any of it," commands the father, and the boy obeys, though his stomach feels as parched as his lips.

Now they raise a winding trail, going ever upward, and the boy's feet slip and shuffle as he strives to keep the pace on the dusty path. The sun reaches the zenith and descends slowly toward the west and hunger begins to gnaw until the little fellow lets out a whimper.

"Pull your belt as tight as you can," says the father, "we must not eat or drink when traveling." When the sun touches the great ridge of hills in the west a halt is made and soon the dried meat is simmering over a fire. They pass the night on the ground and rising before dawn, continue their journey. Once in town the honey and peaches are sold or traded at the market for a few yards of "manta" or a lot of earthen dishes.

It is not uncommon for these Indians to travel for miles by trail so rough that a horse could not follow them.

SEVENS IN THE BIBLE.

Multiples of This Figure Recur Significantly Throughout the New Testament.

The phenomena of the figure 7 and its multiples, occurring in the New Testament, have been pointed upon by Ivan Panin, a Russian student of the Bible, who for a number of years has made his home at Grafton, Mass. This significance of the "seven" group, says the Chicago Tribune, will not be lost even upon the superstitious who are outside the pale of Scriptural points, and as Mr. Panin has shown them, their relations of their groupings to the first 11 verses of the New Testament must suggest that they were scarcely chance.

For instance, in these first 11 verses of Matthew, the vocabulary consists of 49 words, or seven sevens; of these words there are 25, or four sevens, which begin with vowels, and 21, or three sevens, which begin with consonants.

This distribution by sevens between vowel words and consonant words justly might have been deemed accidental but for the fact that of the 49 words 42 of them are nouns—six sevens—and seven are not nouns," is the comment of the writer. "Of the 42 nouns there are 35 proper nouns, or five sevens, while seven are common nouns. Of the 35 proper names four sevens are male ancestors of Jesus and seven are not such. Not only then is the distribution of the 49 words of the vocabulary by sevens as between vowel words and consonant words but also as between the parts of speech."

As a further and absolute proof that these phenomena of the sevens are not accidental Mr. Panin points out that the 49 words of the vocabulary show 14 words that are used but once, while 35 of them, or five sevens, are used more than once. His conclusions after an exhaustive arrangement of the "seven" features are that "Not even the choice of the languages in which the Scriptures were written was made without marked numerical design at the threshold of the subject."

Russia and the Supply of Flax. Russia produces 80 per cent of the flax crop of the world, and the production of that country practically controls the market in America and all other countries. Samuel Gerstle, who is engaged in the importation of linen, said: "Russia is the foundation head of the world's linen supply, and flax is raised there quite cheaply. It cannot be produced successfully in America, and the country's supply is imported. If it were not for the import duty the material would be cheaper than cotton, and the market for the latter product in America is preserved only by the duty which must be paid. The war will not have any effect upon the market, in my opinion, but what will affect it is the fact that Russia is contemplating levying an export tax on the commodity, and that will be a heavy drawback if carried out. The product now leaves Russia duty free."—Louisville Courier-Journal.

When There Is Money. Without a tremor Mrs. Highmore proceeded leisurely to open the black-bordered letter.

"If there were any bad news," she said, "it would have come by telegraph. It must be that something has happened to Mr. Highmore's rich uncle."—Chicago Tribune.

TERRAPIN DOOMED.

SUCCULENT SOUP REPTILES ARE RAPIDLY DISAPPEARING.

Acquired Taste for the Aristocrats Viaud Causes Tremendous Folly on Southern Waters.

The report of Fish Commissioner Bowers for the fiscal year 1903, just issued, contains information calculated to make epicures sad, says the New York Sun.

According to Mr. Bowers, the diamond back terrapin, most prized of dishes, is rapidly disappearing and will become extinct unless artificial means of propagation are adopted. The commissioner says:

"The growing scarcity of the diamond back terrapin in Chesapeake bay, which for years has been the most productive region, has led to the belief that the species may eventually become almost extinct if the present methods of the industry continue, or if no steps are taken to arrest the decline by cultivation.

"The reported catch of terrapins in Maryland in 1901 was only one-sixteenth of the quantity and one-twentieth of the value of that in 1891, and in Virginia the output in 1901 was one-tenth the quantity and one-thirtieth the value of that for 1891.

"The decrease in the local output has in part been made good by the importation by the dealers of terrapins from the South Atlantic and Gulf states—these southern terrapins being kept for a while in ponds and then shipped to market.

"During the summer of 1902 a complete study of the diamond back terrapin of the Chesapeake bay region was undertaken by this division. Prof. W. P. Hay being placed in charge. Supplemental to this inquiry an experimental pond was established as a favorable locality on the Choptank river in Maryland, and another at the laboratory at Beaufort, N. C., for the purpose of studying the terrapin—their growth, breeding habits, etc."

"Everybody in Washington who ever had designs on a diamond-back has known for a long time that they are mighty scarce. Of late the prices have been going even higher, a dozen selects bringing sometimes as high as \$150, or even more. And the supply is never equal to the demand at that.

Incidentally, it might be mentioned that the taste for terrapin is acquired, and that a good many people eat it who would prefer medicine. Commissioner Bowers might have illustrated this if he had told the story of a woman well known in Washington, who, when she came here some years ago, had considerably less knowledge on many subjects than she possesses at the present time.

Shortly after her arrival she wanted to give a very swell dinner and having more money than she knew what to do with and a chef who told her how to perform wonders with everything that over walked, swam or grew, she went out to buy the best in sight.

"You might try terrapin," said a game dealer to whom she went. "They are very nice."

The woman looked at the dozen or so of Maryland "birds" and turned up her nose. She didn't know a terrapin from a mud turtle, and she naturally put them both in the same class.

"How much are they a half dozen?" she asked, with a superior smile intending to squish the dealer after the habit of the price with the statement that money was no object and that she wanted something fit to put before her distinguished guests.

"Twenty-five dollars a half a dozen. One twenty-five a dozen," said the dealer.

"The woman had her nerve with her and came back at him in a moment.

"Of course there is nothing like terrapin," she said. "I'll take a dozen."

SHE KNEW A BARGAIN. It Wasn't Monday, But She Got That Day's Bate in Spite of the Fact.

It is seldom that the bargain element in the feminine sex is so amazingly exemplified as it was in the case of a handsomely-gowned woman at the patent medicine counter of one of the department stores, says the New York Telegraph.

"Twenty-nine cents," responded the girl, laconically, to the woman's query.

"Twenty-nine. Why I thought you were advertising it for 25!" exclaimed the woman in surprised accents, mingled with disgust.

"Twenty-six on Mondays, only," responded the clerk, in the same indifferently tone.

"Well, send me up a bottle on Monday." "Can't do that, madam; you must come for it."

"But I can't come down on Monday; that's perfectly impossible." "You can drop a card."

"Oh, well, I'll do that," acquiesced the stylish patron, satisfied, apparently, with the conclusion, and, leaving her name and address, which was that of a woman well known in society, she hurried out of the store to take her brougham, which was awaiting her at the door.

She saved exactly two cents by the scheme.

BILLY AND CAPTAIN HANK.

An Illustrative Instance of the Difference Between Opulence and Indigence.

In a little island harbor of the Maine coast dwells Billy Van Sant, barber, painter and artist. Painting in his crude way the surf, the moonlit waters, the jagged rocks about his cabin, selling his pictures for a pittance, and on the proceeds taking a lesson or two from some better-equipped artist, he turns art into more art, and for the needs of his pot depends upon the line and lobster-boat and a chance day's work with some prosperous neighbor, relates Youth's Companion.

No one ever looked upon a neighbor with greater pity than is bestowed upon Billy by Capt. Hank, whose neat white cottage faces the opposite side of the harbor. Capt. Hank is "practical." A cent is a cent to him, and a hundred of them, counted slowly, make a dollar.

Billy's four-barrel was naturally empty one day, and his cupboard shelves were almost bare when Capt. Hank pushed upon the cabin door without the formality of knocking, and entered.

"Howdy, Billy?" he said. "I call late to get up to the Harrers to-morrow after a load of wood. I didn't know but I'd get you to go along."

"Billy's heart leaped. To the Narrows would be a whole day's trip. That would mean two dollars, and on two dollars he could live in luxury for more than a fortnight.

"I'll be glad to go, captain," he said. "They were away at daybreak beating up the channel of the river mouth against a strong head wind. They spent the middle of the day, an hour and a half, putting the wood on board the sloop, and at nightfall anchored again under the lee of Capt. Hank's rocky dooryard. Weary and wet, Billy sought his cabin, took down the last provisions from the shelves, and ate everything but a cold potato and a biscuit, which he reserved for breakfast. On the morrow he would be rich again.

The next morning Capt. Hank again sculled his boat across the harbor and entered the cabin. From a bulky bag he bagged the extra wood, with painful dejection, three silver dollars.

"I come over to settle up for that little trip yesterday," he said. "Thirty cents, I made it—four and a half."

Billy wheeled in amazement. "What?" he gasped.

"Well, course we wasn't but an hour and 20 minutes putting the wood aboard, but I ain't one of them folks that skin the feathers off the eagle. Hour and a half I call it, and you're welcome to every cent of it." He held the three dimes forth reluctantly.

Whatever there is of fear of ridicule in the artistic soul is amply developed in Billy. He looked at the three dimes, but hesitated not a moment.

"No, no. Put it up Hank, put it up," he said. "You don't owe me a cent."

With an air of relief the captain returned the dimes to the slot-poned and tied them in a string.

"Well, of course you're welcome to it," he said, as he backed out.

"I reckon Billy ain't no mean little barker," he told his wife over the dinner table that noon. "Wouldn't take a cent for workin' yesterday, but he might as well work me for one whole day—two dollars."

But over in his cabin Billy, who was dining off the last half of the potato and the crumbs of the biscuit, was quite sure that he would not change places with his wealthy neighbor.

IN LAUNDERING LINEN.

Some Points to be Observed When Embroidered.

The first laundering of a piece of embroidery is the hardest, and also the most important, but if it is properly done the first time, it will always be a much easier task afterward, says Good Housekeeping. When first wet, said embroidery is apt to draw and quaker the linen around the design, so that to iron it perfectly smooth is almost impossible. After running one piece of embroidery in laundering in the first time, I learned the secret from a professional. Always do up your piece for the first time before cutting it out.

Wash thoroughly, then have ready a smooth board (the wrong side of the bread board is excellent), cover with a clean cloth, and then tack the center-piece, wrong side up, securely to the board, drawing it very tightly and being careful to keep it perfectly straight, without drawing it askew. Do not hesitate to use a great many tacks, pounding them lightly, until you get the center-piece perfectly smooth. Let it stay on the board until thoroughly dry, over night if you can, leaving the board down flat. If it stands up, the coils will spread.

When dry take from the board, and cut out, leaving three-eighths of an inch of the linen to be tacked back on the wrong side of the board. This makes a firm, neat finish which will never fray after hemming the edge back, press again under a damp cloth, on a piece of flannel, and you will be paid for your trouble by your success.

Orange Bitters. Measure a cupful of sifted flour and put it in a bowl with a pinch of salt, make a well in the center and add the yolk of an egg which has been well beaten with a teaspoonful of salad oil, mix to a smooth batter, then add gradually enough water to make the batter stiff enough not to run from the spoon.—Good Literature.

Cocunut Cones. Boil one cupful of sugar and one-half cupful of water until it threads; beat this slowly into the whites of two eggs beaten stiff, add a pinch of salt, three or four drops of rosewater and a half-pound box of cocoanut, drop on buttered paper and brown in oven.—Good Literature.