

## CUTTERS ON THE GREAT LAKES.

**A Naval Officer Tells What the British Could Do in a Destructive Way.**

"There isn't a city on the northern lakes," said Commander Evans, U. S. N., "that couldn't be easily and quickly destroyed by English gunboats. The English have fifty ships which can come in from the Atlantic by way of the present route. They carry six and eight-inch guns and could go to Cleveland, for example, stand off six miles, or so far away that only their smokestacks would be visible, and ruin the town in a very little while. A six-inch gun throws one-hundred-pound projectiles six miles and pumps them out at the rate of ten a minute."

"But couldn't we blow up the Welland canal and thus prevent the English gunboats from getting through the lakes?" asked a Cleveland Leader man. "I don't think we could."

"The canal is less than twenty-seven miles long, and it has twenty-five locks. Dynamite could be put under a lock, couldn't it?"

"It could if the Canadians would let us," replied Evans. "There are twenty-five locks, that is true, but there is a fort at every one of them. Moreover, the Canadian militia is always kept at a high degree of efficiency. Four or five years ago I examined several of the forts on the Welland canal, and would have seen them all if my identity had remained unknown. They are strong forts, and would be ample protection to the locks."

"The big steel freighters on the lakes could be converted into gunboats and could be made the equal of the ships sent against us."

"So I have heard," replied Commander Evans, with a smile. "There was a time," said he, "when guns could be put on almost any kind of a vessel, but that was a long while ago. A big thirteen-inch gun, when fired, will lift a battleship a foot out of the water. That is an amazing fact, isn't it? The recoil of the modern gun is awful. A six-inch gun if discharged from the decks of any vessel on the lakes would go over the side and to the bottom, and the vessel would follow it. No, the steel freighters are strong and swift, but they were not built to stand up under the strain which even the smallest guns in the navy would give them. A six-inch rifle requires fifty pounds of powder at a charge, and ships which carry guns of that size must be constructed to take the recoil without damage. Ore, coal, grain and lumber vessels can't do it."

"The new cutters which Canada has built are one hundred and twenty-five feet long, merely tugs in size. Could they carry guns?"

"Certainly, if they were designed for guns. A lake tug could stand up under a six-inch rifle if that was the purpose of its builders."

## FOR AMERICA.

**The Star Spangled Banner Toasted by Moorish Hunters.**

The author of "Morocco as It Is" had, as leader of his caravan, a man named Salem, who styled himself the khalifa, or second in command. This man had a small English vocabulary, and one day surprised the traveler with an unexpected display of borrowed patriotism.

The party had stopped in the midst of a boar hunt to take luncheon, and as they were sitting on the mountain side, overlooking the sea, the khalifa suddenly proposed the toast of "The Star Spangled Banner."

The words were hardly out of his mouth when hunters and beaters to the number of fifty or sixty, who were sitting about hungrily waiting for the bones of the feast, sprang to their feet and shouted: "Hip, hip, hooray!"

The Moorish accent of the words made the occurrence all the more amusing. When the traveler expressed his surprise at hearing that familiar toast in a foreign land the khalifa laughed and said:

"Why shouldn't they shout for the stars and stripes? They are good Americans, as their fathers were before them. Let's hold a political meeting!"

He then explained that, sixty years before, the village had been taken under American protection by the consul and that it had remained loyal ever since.

## THE FASHIONS.

VELVET belts with cabbage rosettes of velvet and silk are fashionable.

A NEW evening wrap of velvet is lined and trimmed with ermine.

THE triple cape seems to be quite as popular as ever, and the wide, very full, plaited bertha will be a feature of spring costumes.

VELVET will be as popular for spring wear as it has been during the past winter. Many of the earlier spring hats will be made entirely of velvet.

A NEW costume of black silk is made up with a rolled puff of reddish pink silk at the hem. Double sleeve puffs, the upper one of lace, the lower of pink silk, pink revers and full sash complete the costume.

WHILE fewer veils are worn, there are yet many ladies who cling to them. The little veil of fine net is indispensable to keep the bang in order; otherwise the hair would blow about the face in the most unbecoming fashion.

## NATURE'S FUNNY MOODS.

A LIVE cottonwood tree with petrified roots is growing near Atchison, Kan.

A GOOSE with three wings is the choicest fowl in the flock of Mrs. Samuel Lutz, of Worcester, Montgomery county, Pa.

HARRISON SHERER, of Valparaiso, Ind., claims to have found an elk horn in the hollow of a tree where he supposes it to have been for a hundred years or more.

AN English sparrow, undaunted by Santa Claus finery scattered everywhere, flew into a toy store at Port Carbon, Pa., and alighted upon an open money drawer. The voracious bird seized a dime and took wings for the outside world.

## ASTRONOMY.

SOME of the stars move with a velocity of nearly fifty miles a second.

ASTRONOMERS claim that there are 17,500,000 comets in the solar system.

THE strongest telescope brings the moon to an apparent distance of 100 miles.

THE comet medal of the Astronomical academy of the Pacific coast has been awarded to Edwin Holmes, of London, Eng., for his discovery of the unexpected comet on November 6.

## Famine in Finland.

A serious famine prevails in Finland, and advices from several sources state that a large portion of the inhabitants of that country are perilously near starvation. Two hundred thousand persons of a total population of two million are entirely destitute, and before the winter ends it is expected that one-fourth of the whole number of inhabitants will be in a similar sad plight. The Finns have hard work to make a living at the best of times, because of the poor soil and rigorous climate. Last summer the potato and rye crops were either destroyed or seriously damaged by constant night frosts in July, August and September. Many districts shown to be in great distress are now isolated by snow and ice, and in others the inhabitants are existing on bread composed largely or wholly of birch bark. The Finnish senate has voted several million marks for the relief of the sufferers, and a government committee is trying to cope with the distress, but it is said further help is urgently needed by the people.

## "Uncut Leaves" in England.

A new thing has arisen in the land. At the Authors' club monthly dinners, after dinner takes place a function called "Uncut Leaves," says London Queen. At this the members sit about the room, tobacco, of course, being prohibited, and hear the reading of papers, as yet unpublished by their authors. It is understood that no one is to take notes, and that there is to be nothing published, whatever may be remembered. Any breach of this confidence might lead to very serious results, including, one hopes, an action for damages against any paper which might stoop to publish such a communication. It is quite a novel feature, and is imitated from a similar institution founded in the states, where, however, the people have to pay for the privilege of hearing the authors read their papers.

## TALENTED TADPOLES.

**Frogs Taught by a Wealthy Invalid to Play Many Amusing Tricks.**

Horace Horton has reached the height of success in the way of bringing frogs under his persuasive control. He is a wealthy invalid, and derives great pleasure from teaching his pets. The correspondent of the Philadelphia Record visited him the other day and witnessed his unique frog circus. Gazing down into the artificial lake he saw ocean shells scattered over the bottom, and wondered what they were for. Mr. Horton gave a shrill whistle, and simultaneously from every shell hopped out a big frog, who kicked itself to the surface of the water. All jumped to the smooth bank and sat staring at their master. "Attention!" shouted Mr. Horton, and every leg was drawn close to the body and the action was taken. "Form in line" came next, and the well-trained amphibians formed in four lines, with an old giant at their head, who, Mr. Horton said, weighed six pounds and seven ounces. He was enormous and looked as though he had dined on his weaker brethren for generations.

At the word of command they performed all kinds of evolutions, every leg kicking in perfect unison. Their movements were astonishing in number and variety, and one might well believe Mr. Horton's statement that it took him over ten years to get this select company into such perfect discipline. Races were held after the drill and then followed a jumping contest. At a given signal each frog in turn leaped into the water and disappeared.

"What you have seen my frogs do so far is very wonderful," said Mr. Horton, "but their chief accomplishment you have not seen, or heard, I should say. It is the wonder of every one and people have come miles to witness it. Wait till dusk and then I will have them perform." At last dusk came, and Mr. Horton took the reporter out to the water's edge and gave him a seat. He then brought out a miniature musician's stand and placed it near the edge of the lake.

At a signal note the frogs came to the surface of the water and jumped to the stand. The first frog formed a band, and the first command began to sing a tune. The frog had been selected because of his fine croak, and there was a perfect scale among the voices. The largest frog sang the deepest bass, and a little fellow, almost a tadpole, sang a shrill soprano.

It was wonderful. Mr. Horton said that during the warm months their voices were clearer and sweeter than at this time of year. When the frogs began to show signs of weariness their master gave the signal to stop and all sought their homes at the bottom of the lake. Mr. Horton tells many stories of the intelligence of his pets.

## NIAGARA FALLS WEARING OUT.

**Changes in the Shape of the Ledge Over Which the Waters Pour.**

Formerly the Canadian side of the Niagara falls was U-shaped, which caused the name Horseshoe falls to be given it. For the last ten or dozen years, according to the Philadelphia Press, that side of the fall has been V-shaped instead of U-shaped, the change being caused by the wearing away of the ledge over which the waters pour. On January 4, 1889, a great displacement of rocks again took place, and now the Canadian side of the great cataract is again "Horseshoe Falls." It is pretty generally known that the falls of Niagara are moving to the south. A deep cut through the solid rock marks the course they have taken in their backward march.

It is a wonderful excavation, a mighty canal dug out by the sheer force of falling water. Not less astonishing is the removal of all this debris. The rocks have been thoroughly pulverized and swept out into Lake Ontario. Once it was believed that the falls would ultimately wear back to Lake Erie and degenerate into a second-class rapids. The latest idea is that the fall will recede two miles farther to the southward and then stop; that is, as far as the backward tendency is concerned. The cause of this will be that at that

point a solid foundation for the limestone ledge over which the waters pour will be found. Two miles of a wearing back will make the falls only eighty feet in height, instead of one hundred and sixty, as at present.

## THE MOVEMENTS OF MARS.

**A Few Points of Interest About the Ruddy Planet of War.**

The diameter of Mars in miles is about forty-two hundred, so that its surface is about three-tenths that of our earth, and its volume about one-seventh. Its mass is about one-ninth of the earth's mass, and its density some seven-tenths. Its gravity, says a writer in the Forum, is thirty-eight one-hundredths; that is, a body weighing one hundred pounds on the earth would weigh but thirty-eight on Mars. It rotates on its axis in twenty-four hours, thirty-seven minutes and twenty-three seconds—that is, in about the same time as the earth; it is flattened at the poles like the earth, and its equator is inclined to its orbit just as the earth's is, and by something like the same amount. It receives about three-sevenths as much of the sun's light and heat as falls upon the earth. It seems to be certain, moreover, that the atmosphere of Mars contains a considerable amount of watery vapor. The researches of M. Gerigny show that the tides on Mars have little to do with the changes observed on its surface. These figures show, on the whole, a family likeness between Mars and the earth. Mars is considerably smaller than our planet, but it apparently presents many analogies to it.

## American Light in Italy.

The best lighted city in Europe is Milan. American machinery only is employed in its two central stations. A curious feature of the system of distribution is that the wires, instead of being carried on poles, are suspended from the brackets under the eaves of the houses.

## THE DOINGS OF ROYALTY.

NEW YORK is to supply 100,000 a year of light bulbs for the city of New York. The bulbs will be distributed to the houses of the city.

EMPEROR WILLIAM's Christmas gift to Queen Victoria consisted of a beautiful photographic album containing forty-three large views of the recently restored Schlossdrche of Wittenberg.

AT the suggestion of Empress Frederick, the British, Roumanian and Prussian royal families will give to Princess Marie, of Edinburgh, as a wedding present, a morocco frame inclosing group pictures of the three households.

THE king and queen of Italy have invited Queen Victoria to spend a few days with them at Rome during her next visit to the continent, and, as the sovereign of Great Britain has frequently expressed her desire to visit the Eternal City, it is quite likely that the invitation will be accepted.

## INDUSTRIAL AND STATISTICAL.

PENNSYLVANIA produces more cigars than any other state in the union.

It is estimated that 32,000 varieties of goods are manufactured from wood.

OVER 600 varieties of cotton are said to exist—400 in Asia and Africa and 200 in America.

THE receiving reservoirs of the Croton aqueduct have a joint capacity of 1,180,000,000 gallons.

THERE are two hundred thousand men employed upon the twenty-three thousand papers published in America.

IN Great Britain the area occupied by wood lands was 2,458,000 acres in 1881, and it increased to 2,695,000 acres in 1891.

IT is estimated that there are one million more orange trees in bearing this year in California than there were last, which will give a better idea of the increase than if it were stated in acres.

A RICH strike of gold is reported to have been made in the Grand Canyon of the Colorado, seventy miles north of Flagstaff, A. T., and the reports from the San Juan placer diggings show them to be rich also.