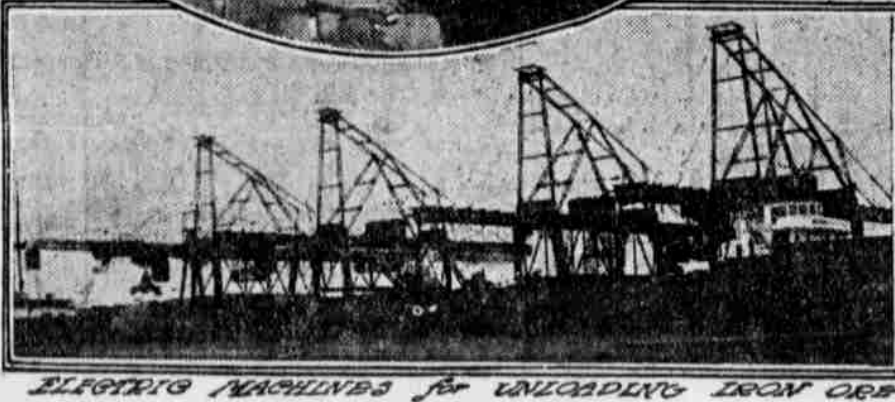
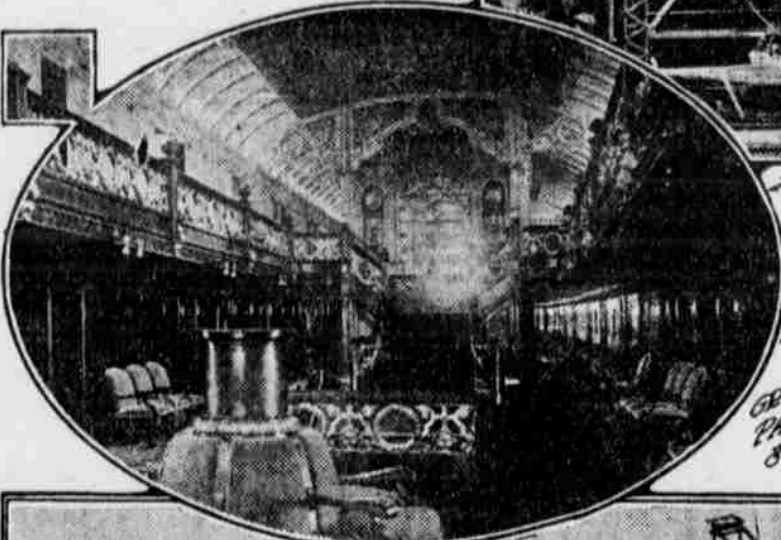
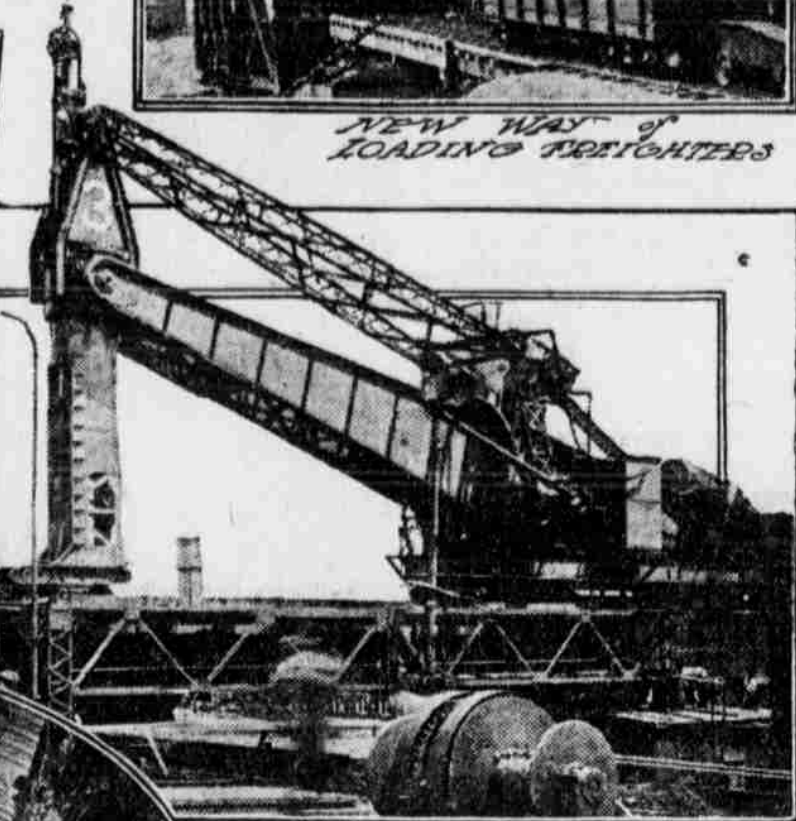
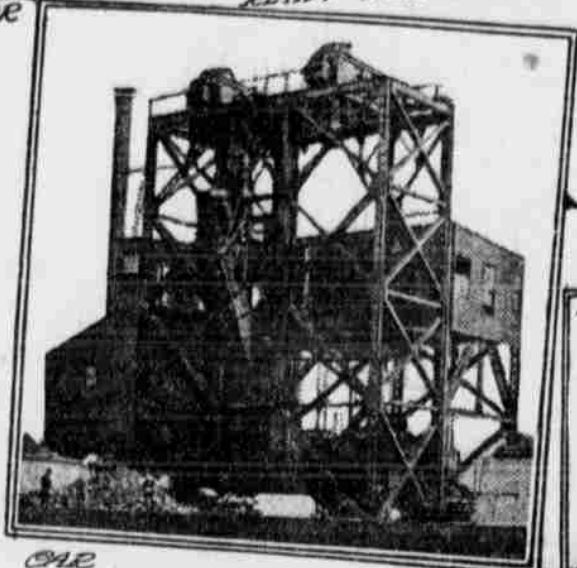
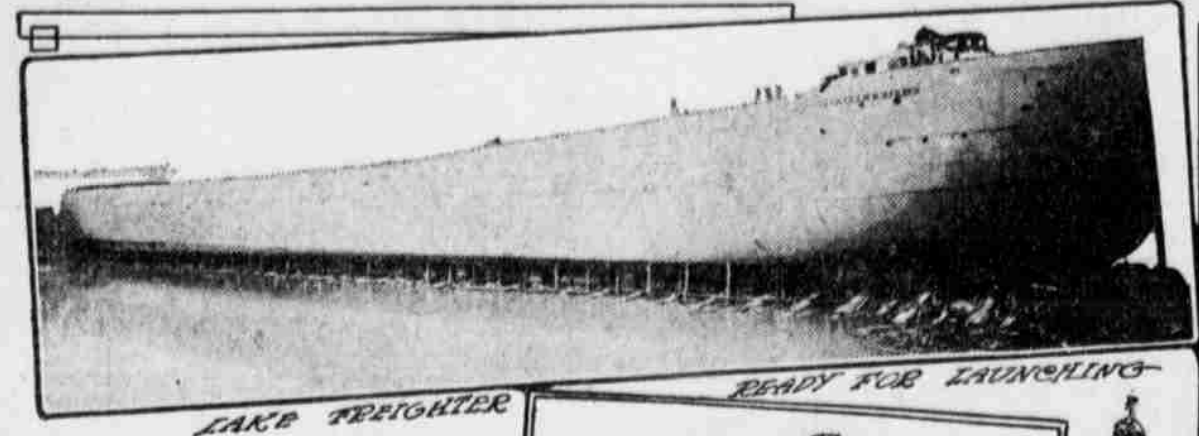


The Commerce of the Great Lakes



SEVERAL recent or prospective events are combining to direct especial attention just now to our great unsalted seas and to the remarkable commerce of this thousand-mile inland waterway. Foremost, perhaps, among these stimulants of popular interest are the preparations being made to honor Commodore Perry, the hero of that most significant historical event—the Battle of Lake Erie. It was Perry, more than any other one man, who has given the Great Lakes a place in the historical annals of the republic fully in keeping with the prestige these inland seas enjoy in the commercial chronicle of the nation.

The one hundredth anniversary of Perry's victory is approaching and preparations are under way for the erection of a magnificent Perry memorial, overlooking Put-in-Bay, where Perry's ships were harbored before and after the victory over the British on Lake Erie. The memorial which will take the form of a towering shaft and a museum building will stand on the small isthmus connecting the two sections of one of the principal islands at Put-in-Bay. This chosen site is of additional interest from the fact that it was here, after the naval victory, that American troops under General William Henry Harrison were organized and drilled preparatory to the battle of the Thames and the capture of Detroit. Furthermore the memorial will be unique in that the towering shaft will be made to serve as a lighthouse of the first order. The Museum of Historic Relics will be a hall of fine proportions, with upward of 5,000 square feet of floor space and finally there will be a memorial for the American and British officers and sailors buried on the island.

Another current topic that has focused popular attention upon the great waterway on our northern border is the improvements designed to increase the capacity of the locks at Sault Ste. Marie. The government ship canal in St. Mary's river at the Sault or the "Soo," as it is popularly termed, is to the Great Lakes what the Panama canal will be to oceanic traffic, and the Sault canal already enjoys the distinction of passing more tonnage during the eight months season of navigation than the famous Suez canal does during the full twelve months. What records this link between Lake Huron and Lake Superior will boast with the current expansion of facilities it is difficult to forecast.

And, finally, much comment has been precipitated by the rumors in the newspapers that the recent activity of the United States government against certain trusts and particularly the steel trust served to nip in the bud a very ambitious plan for amalgamating under one ownership practically all of the great modern freight-carrying vessels on the Great Lakes. Even as it is the cargo carriers of the inland seas are owned or controlled by a relatively small group of interests compared to the diverse interests that have a hand in our oceanic commerce. But perhaps that is due to the circumstance that the commerce of the Great Lakes is so largely restricted to such commodities as iron ore, coal, grain and lumber and the men who make use of the raw material produced in the lake district find it profitable to own ships to an extent not paralleled in any other field of water-borne commerce.

The commercial interest of the Great Lakes have for years enjoyed one point of superiority over all the other burden-bearers on the globe. Freight is carried more cheaply on the Great Lakes than anywhere else in the world. It is only fair to explain at the outset, however, that this is due not solely to the monster ships employed—the largest ever floated on fresh water—and to the economical manner in which these craft are operated. A secondary factor of great importance is found in the marvelous dock machinery and equipment which has been perfected in the lake region for mechanically loading and unloading cargo—transferring the coal or ore from railroad

cars to the hold of a ship or vice versa. To such lengths has this been carried that in the case of some commodities the transfer of cargo is wholly automatic and it is claimed that the iron ore is not touched by human hands from the time it is mined in Wisconsin or Minnesota until it is fed to the blast furnaces at Pittsburgh or South Chicago, or Gary, Ind., or some other center of the steel manufacturing industry.

The ships of the Great Lakes, alike to their counterparts on salt water, have been gradually growing in size as years have gone by. However the depth of certain channels connecting the lakes and other considerations will preclude the possibility of the lengthening process going on indefinitely as it appears likely to do in the case of ocean-going craft. The 1,000-foot steamer which is already "in sight" in the evolution of trans-Atlantic navigation will probably never have a parallel on fresh water and, indeed, it is more than likely that present-day lake cargo ships come pretty near representing maximum, although there is no doubt that our Great Lake passenger ships will go on increasing in size and luxury as more and more people come to realize that a trip "up the lakes" or "down the lakes" has a variety and fascination not equalled by a voyage across the Atlantic.

The freighters of the Great Lakes are without a counterpart on the other waters of the globe and they are a source of continual wonderment to foreigners traveling in this country—and, indeed, to most of our own citizens who reside in sections of the country away from the inland seas. The most common type of lake carrier—the approved pattern for the ore and coal trade which is the mainstay of lake commerce—is a long vessel with rounded ends. No deck is laid on the main-deck beams in the cargo-holds and the bridge, mast and deck-houses are bunched at the extreme forward end of the vessel whereas the engines and propelling machinery are at the extreme opposite end, leaving practically the entire length of the hold free for cargo storage.

This odd arrangement conduces to the carrying of the greatest possible amount of freight and, more important yet, it renders possible the employment of the marvelously economical loading and unloading machinery—"car dumpers" which dump coal into the hold at the rate of a car a minute and "automatic unloaders" which lower "clam shell" grab buckets into a hold, scoop up ten tons of iron ore at a bite, lift it aloft, carry it to the dock and deposit it either on stock piles or in waiting railroad cars. To facilitate the operation of these gigantic inanimate dock laborers it is necessary of course to have numerous openings in the deck of the ship. As a matter of fact the latest approved pattern of lake freighter presents a long line of hatches set as close to each other as possible, and each hatch extending almost the full width of the ship. This renders it easy for the mechanical unloaders to reach, with their steel fingers, to every nook and corner of the cargo space and all that is necessary to complete the job of unloading, after the automatic unloaders have concluded operations, is to turn loose a small squad of men with shovels who will clean up the scant amount of ore or coal missed by the automatons.

Ice limits the season of navigation on the lakes to eight or nine months and this makes lively work necessary when there is much freight to be moved back and forth between Buffalo and Chicago or Duluth, or between intermediate ports. In an average season an average cargo steamer will make at least twenty round trips on the marine highway that encompasses nearly one-third of all the fresh water on the globe. The season's journeyings of the ordinary freighter would in the aggregate more than equal a voyage around the world. The lake ships are intensely modern in every respect. They are constructed entirely of steel; lighted by electricity; steered and heated by steam; and have almost all the "fixings" to be found on any of the oceanic cargo ships in any quarter of the globe. The first lake cargo carriers had a capacity of only a few hundred tons, but so rapid was the development of this class of shipping that within a score and a half of years the pioneers of lake navigation who had continued in service were rubbing their eyes to realize the magnitude of vessels around six hundred feet in length and with a carrying capacity of nine thousand to ten thousand tons. And, most surprising of all to many people, is the circumstance that these ships when fully loaded do not in most instances draw more than eighteen to twenty feet of water.

WHAT MIGHT HAVE BEEN.

"Where," asked the female suffrage orator, "would man be today were it not for woman?" She paused a moment and looked round the hall.

"I repeat," she said, "where would man be today if not for woman?"

"He'd be in the Garden of Eden eating strawberries," answered a voice from the gallery.

"Comparisons Are Odious."

When little Amy was three years old she was taken to visit her maternal grandmother. During her stay the entire household made much of her, and on her departure she was hugged and kissed and wept over by each member of the affectionate family in turn. The scene made a deep impression on her young mind.

A visit to her father's home following. At the conclusion of it her paternal grandmother and her Aunt Mabel stood smilingly waving their adieu to the little one until the carriage was out of sight.

Amy's mother was beginning to wonder what made her so unusually quiet, when a solemn little voice rang out from her corner of the carriage:

"Not a tear shed!"—Youth's Companion.

NEWS for the YOUNG PEOPLE

TESTING THE OPERA GLASSES

Ingenious Manner of Settling Disputes Among Boys as to the Magnifying Power.

At this time of year, when people go to the theater a good deal, boys often have disputes as to the magnifying power of the grownups' opera glasses. Here is the way they are tested.

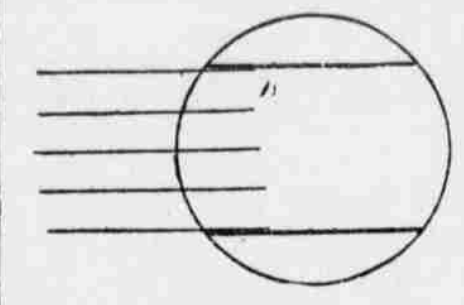
Pick out some object with a number of equally distant lines on it, like a brick wall, the slats on a blind, the rungs of a ladder or the clapboards



Testing Opera Glasses.

on a frame house. Hold the glass so that you look through only one-half of the glass, as shown in the illustration. Now close the left eye and get the opera glass focussed on your lines. Holding your gaze steadily on these lines open your left eye and move the glass until you see the same lines with both eyes at once. With a little practice you will get them to overlap as if you were not looking through the glass at all.

Count how many spaces you see with your left eye in the single space that you see with the eye that looks



The Eye and Glass.

through the glass and that will be the magnifying power. In the illustration it is four times. Telescopes can be tested in the same way, if held very steady.

READ HUCK FINN UNDER BED

Alabama Man Relates Difficulties He Underwent to Absorb Mark Twain's Well Known Book.

Crawford T. Ruff of this city had an experience while reading Mark Twain's famous "Huckleberry Finn" which probably was never duplicated by another admirer of Clements.

"It must have been more than thirty years ago," said Mr. Ruff, in relating the story to a party of friends, according to the Montgomery Advertiser, "when I was a small shaver. Only a limited number of copies of the book appeared with the first edition. Only one book came to the little town where I lived, but it sufficed for the entire populace. The book went the rounds, from neighbor to neighbor, and finally landed in our home. I was so absorbed in the first chapter that I wanted to finish it all before any one else in the family started on it.

"There was an old time bedstead in our home. The headboard was two or three feet from the window. The covering dropped to the floor on either side, so as to conceal me from view, except from the rear. I would crawl under the bed with Huck Finn, face downward, and with my head near the end of the bed so the light from the window enabled me to read. In this way I finished the book before anybody else in the house got it."

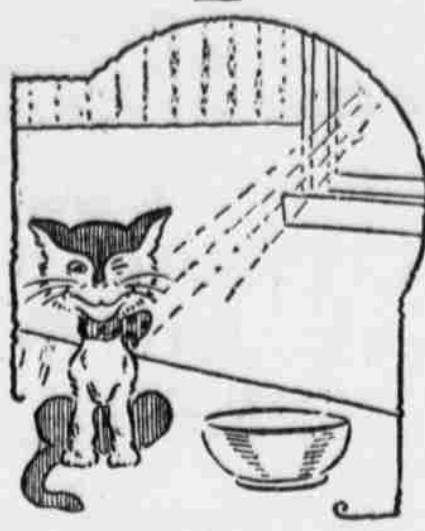
Count in Their Sleep.

We are so accustomed to doing certain things by force of habit that we hardly ever stop to consider what a part it plays in our affairs. For instance: In the larger cities professional fire fighters sleep in the buildings where their fire engines and other appliances are kept. All night long the fire gong may be ringing, denoting that blazes have sprung up in other parts of the town, but only one sort of ring warns the firemen that it is their time to be up and doing. Through all the other clangings of the bell they sleep comfortably; yet as soon as the number of rings strike that denotes that a fire is raging in their district the firemen instantly arouse by force of habit. While half asleep they almost leap into their clothes and finally they rush to their regular places on the engine, the hose cart or the hook-and-ladder truck. Often they do not get thoroughly awake till they are in the street and racing toward the fire, but they have done right by force of habit.

One Kind of Garters.

One day last summer little Dottie was watching her mother canning fruit. After the rubber rings had been put on several cans Dottie exclaimed: "Oh, mamma, let me put the garters on the rest of them!"

PUSSY PLUMPKIN.



Little Pussy Plumkin,
Sitting in the sun;
Little Pussy Plumkin's
Too tired to frisk and run.

Pussy's had her dinner—
An AWFUL lot for her!
And so she sits a-sunning—
Don't you hear her gently purr?

BUTTERFLY IS TRANSPARENT

Prof. Beebe Describes Insect Through Whose Outstretched Wings Objects Are Clearly Seen.

In "Our Search for a Wilderness," William Beebe of the New York Zoological park, describes his first sight of the transparent butterfly—Hoetera piera—of British Guiana, an insect through whose outstretched wings any substance on which it rests can be clearly seen.

"As we crossed a swirling creek on the trunk of a mighty fallen tree, something fluttered ahead," he writes. "We could not see what it was. Closer we came, and still the object remained indistinct; we seemed to see a butterfly, and yet that appeared impossible. At last we marked it down on a fern frond, and crept up until our eyes were within two feet of it. Nothing was visible but the graceful lace-work of the frond, until a slanting beam of sunlight struck it, and there, close before us, was a butterfly that spread fully three inches, but was wholly transparent, save for three tiny spots of azure near the margin of each hind wing.

"As we looked, it drifted to a double-headed flower of scarlet, and when it alighted, the scarlet of the flower and the green of the leaf were as distinct as if seen through thin mica, and the faint gray haze of the insect's wings was marked only by the indistinct venation."

AMUSING FOUR-HANDED GAME

Can Be Played With Partners or All Can Play Alone—Board Contains 100 Squares.

To make possible a four-handed game of checkers, two playing partners, or all playing their own game,



Four-Handed Checkerboard.

The board shown in the illustration has been constructed in France. The game is played with either 20, 36, 56 or 80 men, and the squares are in four different colors which divide the board diagonally into four triangles. It is well to note that the ordinary French checkerboard contains one hundred squares instead of the 64 of the American board.

YOUNG BEAVER'S DAY'S WORK

Industrious Little Animal in Regent's Park Gardens, London, Falls Tree Two Feet Thick.

A young beaver in Regent's Park Gardens, London, was once placed at work upon a tree twelve feet long and two feet six inches thick, just as the town clock sounded the hour of noon. The beaver began by barking the tree a foot above the ground.

That done he attacked the wood. He worked hard, alternating his labor with dips in his bathing pond. He bathed and labored alternately until four o'clock in the afternoon, when he ate his supper of bread and carrots and paddled about in his pond until 5:30 o'clock.

Ten minutes later, when only one inch of the tree's diameter remained intact, he bore upon his work and the tree fell. Before it fell the beaver ran as men run when they have fired a blast. Then as the tree lay on the ground, he portioned it out mentally, and again began to gnaw.

He worked at intervals all night, cut the log into three parts, rolled two of the portions into the water and reserved the other third for his permanent shelter.

How She Caught It.

A little four-year-old went to Sunday school for the first time and heard the children singing: "Once I was blind but now I can see." That afternoon her sister heard her sing: "One side was blind, but now it can see."

Patient Fishermen.

"What, giving up already, my boy?" said a gentleman to a youthful angler. "You must bring a little more patience with you another time." "I brought enough patience with me, mister, but I didn't bring enough worms."

Making a Home of Your Abode

Order is All Right, of Course, but Other Things Should Have First Consideration.

Are you a good housekeeper as well as a good housekeeper? If you think more of keeping your house in apple pie order than of allowing the members of your family to enjoy real home comfort you are not.

Your family can secure a housekeeper at any time for a stipulated sum, but the woman capable of creating a "homey" atmosphere is priceless.

Order is an excellent thing and no household should be without it, but the woman who makes a fetish of it drives happiness and comfort from the earth.

Ever witness the sigh of relief with which a hen-pecked family sees the wife and mother take a vacation? They're fond of her, of course, but there isn't any doubt about a certain sense of freedom and relief which her absence affords. When John puts her on the train he doesn't return home to mourn and pine for her return; instead, he takes an almost rapturous delight in smoking in every room in the house without the fear of being ordered to the porch or the room allotted him for the purpose. Tommy exultantly punches her ornamental pillows to a comfortable angle for his head. Nellie isn't obliged to endure the mortification of informing her new beau that mother insists upon the young men going home at an unrea-

sonable hour. Even the younger children break loose and have a candy pull in the immaculate kitchen, while everyone delights in moving the stately row of porch chairs to a look of disorderly comfort. In fact, they all unconsciously do their best to create the longed-for "homey" atmosphere, with a secret dread that the wife and mother will return all too soon.

Do not make the mistake of sacrificing the happiness and comfort of your family to your insane worship of order. The members of your family do not appreciate it. They'd a great deal rather you were a little careless and less exacting. Besides, you would then have time to get better acquainted with them and their individual interests, and to keep in touch with current events instead of being a back number.—Exchange.