

# SHIPS OLD AND NEW.

## VESSELS OF VARIOUS COUNTRIES AND TIMES.

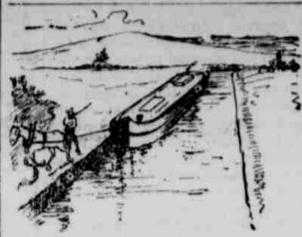
**How Great Navies Grew—A Grand Historical Exhibit for the Exposition—Development Through Gradual Change of Facilities in Water Transportation.**

**Naval Architecture.**  
The perils incident to the navigation of lakes and streams of any considerable magnitude a few centuries ago were sufficient to test the courage of the boldest and bravest; but the real and imaginary dangers that confronted the mariner who ventured in his frail bark upon the unknown open sea were appalling. To cross and recross the Atlantic is now pastime—a journey as safe and swift as one covering the same distance on land. But in the time of Columbus it was altogether a different affair, and we can never sufficiently admire the moral fortitude and grandeur of purpose which inspired and sustained that heroic navigator (contemptuously regarded as a "crank" by the wise men and decided as

tamarack roots. When Columbus landed at the West Indies on his fourth voyage he was visited by an Indian trader in a canoe eight feet wide, formed out of a single tree and propelled by twenty-five rowers. The canoes of many Western tribes were frames of osier or flexible poles covered with buffalo skins sewed together with the sinews of the deer. On the Atlantic coast canoes were used extensively by the first European

expect to see models of some of the original stern wheelers of which these vessels were the type at the coming exposition. The record of steamboat construction from 1830 to 1841 showed an increase that more than doubled all previous efforts, the tonnage of steamers in 1838 being about equally divided between high pressure and low pressure engines. The former were almost exclusively used

fine art, and maintains a leading place in naval architecture. To other vessels it is what the thoroughbred is to the or-



ON THE FINE CANAL.

dinary roadster. Human genius and constructive skill all stimulate it to their utmost by competitive tests in which the victor is crowned with honors and substantial rewards. When in 1851 the America captured the international cup from the royal yacht squadron, of England, it was thought that fast sailing had reached its limit. But this belief



ROBERT FULTON'S STEAMBOAT.

was signally dispelled by subsequent races, notably that between the Genesta and Puritan for the same prize.

Then the conviction became general that vessels of the Burgess model could outfoot any craft of its class that could be designed. But to the utter amazement of yachtmen and ship-builders, one Horshoff stepped to the front with the Gloria, a strikingly unique and bold departure from all precedents in lines, build and rigging, at present conceded to be the fastest yacht afloat. The international regattas held in this and foreign waters have been fruitful in good results. Aside from the gratification afforded by a contest honorably conducted, every suggestion of improvement in strength, speed and beauty which such races determine are eagerly caught up and incorporated in naval construction on a large scale.

The Monitor-Merrimac duel demonstrated for the first time in a combat of national importance the superior efficiency of heavy guns and armor plates in naval warfare. Thenceforth the "wooden walls" which for centuries had been the pride and glory of England, were so much useless lumber. Such illustrious vessels as the Victory, the Constitution, the Hartford, and others, still exist as faithful reminders of patriotic duty nobly performed. Their splendid records have glorified history, and their reproduction in model will prove a profoundly interesting feature.

### Driver Ants.

There are certain ants that show wonderful intelligence, and the "driver ants" not only build boats but launch them, too; only these boats are formed of their own bodies. They are called "drivers" because of their ferocity. Nothing can stand before the attacks of these little creatures. Large pythons have been killed by them in a single night, while chickens, lizards, and other animals in Western Africa flee from them in terror. To protect themselves from the heat, they erect arches under which numerous armies of them pass in safety. Sometimes the arch is made of grass and earth gummed together by some secretion, and again it is formed by the bodies of the larger ants, which hold themselves together by their strong nippers, while the workers pass under them. At certain times of the year, freshets overflow the country inhabited by the "drivers," and it is then that these ants go to sea. The rain comes suddenly, and the walls of their houses are broken in by the flood, but instead of coming to the surface in scattered hundreds, and being swept off to destruction, out of the ruins rises a black ball that rides safely on the water and drifts away. At the first warning of danger, the little creatures run together, and form a solid ball of ants, the weaker in the center; often this ball is larger than a common base-ball; and in this way they float about until they lodge against some tree, upon the branches of which they are soon safe and sound.—St. Nicholas.

### A Bullet's Freak.

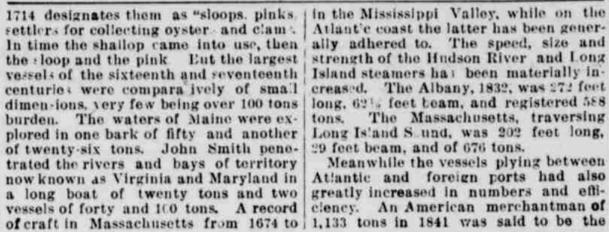
A few years ago there was in portions of the new West much lawlessness of one kind and another, checked only by an occasional piece of individual retribution or by an outbreak of vigilance-committee work. A curious shooting affair which occurred in Medora, North Dakota, is thus described by Mr. Roosevelt:

I did not see the actual occurrence, but I saw both men immediately afterward, and I heard the shooting, which took place in a saloon on the bank, while I was swimming my horse across the river. I will not give the full names of the two contestants, as I am not certain what has become of them; though I was told that they had since been put in jail or hanged, I forget which.

One of them was a saloon-keeper, familiarly called Welshy. The other man, Hay, had been bickering with him for some time. One day Hay entered the saloon, and the quarrel became at once violent. Welshy suddenly whipped out his revolver and blazed away at Hay.

Hay staggered slightly, shook himself, stretched out his hand, and gave back to his would-be slayer the ball, saying, "Here, man, here's the bullet!"

It had glanced along his breastbone, gone a roundabout course, and come out at the point of the shoulder, when, being spent, it dropped down the sleeve into his hand.



THE U. S. CRUISER CRIC/GO.

in the Mississippi Valley, while on the Atlantic coast the latter has been generally adhered to. The speed, size and strength of the Hudson River and Long Island steamers has been materially increased. The Albany, 1832, was 272 feet long, 62½ feet beam, and registered 558 tons. The Massachusetts, traversing Long Island Sound, was 292 feet long, 29 feet beam, and of 676 tons.

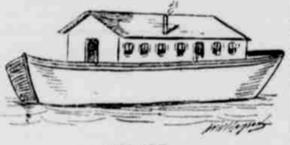
Meanwhile the vessels plying between Atlantic and foreign ports had also greatly increased in numbers and efficiency. An American merchantman of 1,133 tons in 1841 was said to be the



THE VICTORY, BRITISH NAVY.

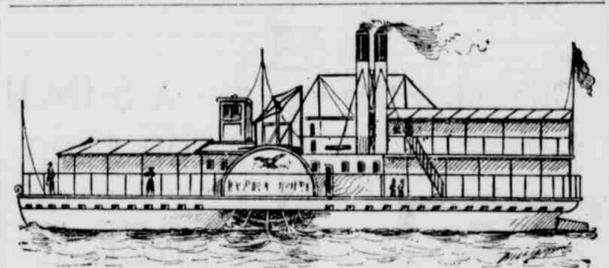
largest in the world. In 1850 vessels of 2,000 tons were not uncommon. The Republic, 1853, had a tonnage of 4,555 tons.

Then followed the era of flat boats and "broad horns" (the latter for coal), rafts, arks, etc., exclusively adapted to



THE ARK.

From 1810 to 1860 the finest sailing vessels were built for ocean service, making



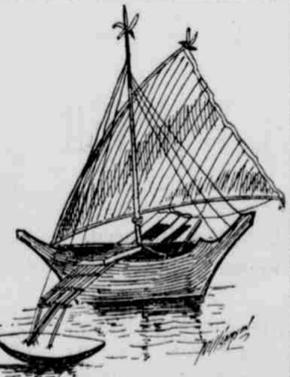
HUDSON RIVER STEAMBOAT.

remarkably swift voyages between English and Atlantic seaports, and China, Australia and Pacific coast points.

It was a period especially a time and eventful in matters bearing on all classes of navigation interests, most important changes being due to the successful application of the screw by Ericsson. In 1840 the Cunard line was established. In 1851 as many as fifteen companies, sixty-three steamers, 111,496 tons) were run-

headwaters to New Orleans being effected in this way. For ascending streams, keel boats were provided. Arks and rafts played a conspicuous and important part in the transportation of heavy material, live stock, etc., the farmers of Central and Western New York, before the construction of the Erie Canal, sending their produce to markets in arks down the Delaware and Susquehanna Rivers. Keel boats covered in with cabins for passengers were called "barges." Some of these were from 70 to 100 feet long and to 100 tons capacity. Steamboats for crossing ferries (of eight-horse power) were in use from 1818 to 1824.

Early canal projects made slow headway. The completion of the Erie Canal, however, in 1825, and its success, both financially and as a great artery of commerce, stimulated the construction of similar enterprises elsewhere, especially in Pennsylvania and New Jersey. But the first successful application of steam as a motor by Robert Fulton in 1807, who made an initial trip in the Clermont up the Hudson, a distance of 110 miles in twenty-four hours, practically revolutionized existing methods of transportation and travel. The first steamboat on



SANDWICH ISLAND BOAT.

lines between New York and London and Liverpool. In the United States there was a corresponding increase in size and splendor of river and lake steamboats, the Hudson River boats attaining an acknowledged superiority over all other vessels of their class in the world.

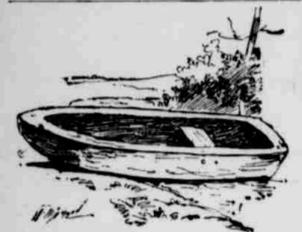
In connection with models, photographs, and sketches illustrating the many changes in construction, equipment and propulsive devices which have marked the important transitive periods above briefly referred to, the reproduction of designs and improvements adapted to the protection of life and property on the seas, buoys, signals, lighthouses, docks, wire-kling apparatus and appliances, will be hardly less interesting.

In the modern yacht ship-building has attained its highest perfection as a



MISSISSIPPI RIVER RAFT.

Western waters, the Enterprise, made its trial trip from Pittsburg to New Orleans, and was subsequently (in 1814) wrecked near Natchez. We confidently

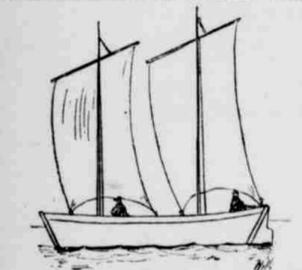


DUGOUT.

a fool by the ignorant of his day and generation) who, after overcoming the intrigues of a hostile court, by the aid of Queen Isabella, set sail at last, and, in spite of adverse winds and a mutinous crew, completed his first transatlantic voyage with results so startling and stupendous.

The International Exposition of 1893, to be held in Chicago (named Columbus in his honor) will be a worthy tribute to his genius and life work. One of the happy features among single exhibits will be the exact reproduction in size, form and equipment, down to the minutest detail, of the famous vessel from whose deck Columbus caught the first glimpse of the shores of the new world. This precious souvenir, after being welcomed in its arrival from Genoa with due honor in New York harbor, and making the passage of the lakes to Chicago, will be assigned to the Department of Transportation Exhibits during the World's Exposition. The classification of this department includes vessels of every type and description, ancient and modern.

The plans of this exhibition are not to be limited to merely a competitive dis-



THE ANCIENT SHALLOP.

play of the finest specimens and models of ships, steamers, yachts, boats, etc., of the latest improved construction, but is intended to show in a realistic way the methods of water conveyance peculiar to all countries from the most enlightened to the semi-civilized and barbarous. A series of object lessons in chronological order will punctuate each progressive step in naval architecture from the crude attempts of boat builders to the stately steamships and ironclads of to-day.

Such an arrangement of naval specialties and curiosities will not only gratify the sight-seer, but possess a historical and educational suggestiveness that will invest them with far more than ordinary interest. A similar judicious plan will be adopted in the grouping of articles belonging to the other two distinctive classifications of this department comprising railways, their operation and equipment, and vehicles on common roads.

The continent of North America, from the date of its first settlement by white men, will afford a varied collection of naval curios. The aborigines did not lack the



COLUMBUS, SANTA MARIA.

facilities to ascend rivers or paddle over lakes on their hunting and fishing excursions. The dugout, laboriously hewn with shells or burned out of a solid log; the birch-bark canoe, and the coracle, the latter consisting of wicker frame work covered with skins, were their chief means of water transportation, and at first, for lack of anything better, the whites were not slow to adopt Indian methods. Some of their canoes were by no means insignificant affairs. The Iroquois made them from twelve to forty feet long, with a capacity for carrying twelve to forty men. The Chippewas used the rind of one birch tree, shaping it to a graceful model and sewing it with

## The Death-Watch.

The old superstition of the "death-watch" is supposed to have vanished with the scientific explanation that the sound is only the work of a harmless insect; but as a matter of fact there are still many people foolish enough to be disturbed if they happen to hear the mite at work. A gentleman who supposed himself entirely free from this or any other superstition, went to pass the night, at the house of a friend in the country, and when he was shown his chamber for the night his host said:

"I hope you are not superstitious?"

"Not in the least," the guest answered. "Why do you ask?"

"Because," was the reply, "the death-watch is sometimes heard in this room, and I wondered if you would mind."

"Oh, not at all," the guest answered.

He went to bed, and soon fell asleep, but about midnight he awoke, and on becoming thoroughly conscious, perceived that he was straining his ears to listen to the steady and continuous ticking of the death-watch in the wall. He smiled to find that so slight a thing had awakened him, and composed himself to sleep again; but to his annoyance he found it impossible to do so.

He listened to the sound of the death-watch with an indefinable but constantly increasing uneasiness, and when, after a time, he heard the distant howl of a dog, he was surprised and not a little disgusted to find his heart beating with unnatural rapidity.

The gentleman lay awake for the remainder of the night, uneasy, disconcerted, and vainly endeavoring to reason himself into a saner frame of mind. He rose in the morning thoroughly worn out.

"You do not look as if you had slept well," the host said. "I hope the death-watch did not keep you awake."

"It did, though," the guest answered. "I heard it all night long."

"Well, I am very sorry," the host said, "but the masons are coming this morning to fix it."

"To fix what?" the other asked.

"Why, the noise is made by a tiny leak in the side of the reservoir for rain-water. It is just outside the wall of your room on the terrace, you know; and the water falling, a drop at a time, makes that sound of a death-watch."

The guest said no more, but he declares that it is beyond the power of any mysterious noise in the wall to keep him awake another night.

## Great Piece of Masonry.

The distinction is now said to belong to Bombay of possessing the greatest piece of solid masonry construction that the world has seen in modern times. It appears that for years past the water supply of Bombay depended upon works known to be defective, involving the possibility of a water famine in that great Eastern seaport, and in view of this, a consultation of eminent engineers was held under the direction of the government, with the result that a large dam was determined on to inclose the watershed of the valley which drains into the sea south of Bombay.

This gigantic structure, designed and accomplished by the superior engineering skill of T. C. Glover, is two miles long, 118 feet high and 103 feet wide at the base, with a roadway on top twenty-four feet wide, the stone work alone costing \$2,000,000. The lake of water which this dam impounds, is eight miles in area and sixty miles of pipe perform the service. Twelve thousand Hindoos were specially trained by Engineer Glover for employment on this dam.

## In the Olden Time.

The following "Twelve Rules," a copy of which used to hang in every colonial kitchen for the benefit of the household servants, had perhaps a share in forming the sturdy, upright character of which New England is justly proud:

Profane no divine ordinance.  
Touch no State matters.  
Urge no healths.  
Pick no quarrels.  
Encourage no vice.  
Repeat no grievances.  
Reveal no secrets.  
Maintain no ill opinions.  
Make no comparisons.  
Keep no bad company.  
Make no long meals.  
Lay no wagers.

## Wound by the Sun.

A clock is to be seen at Brussels which comes as near to being a perpetual-motion machine as is likely ever to be invented. The method by which it works is described in the Optician.

A shaft exposed to the solar rays causes an up draft of air, which sets a fan in motion. The fan acts upon a mechanism which raises the weight of the clock until it reaches the top, and then puts a break on the fan till the weight has gone down a little, when the fan is again liberated, and proceeds to act as before.

As long as the sun shines frequently enough, and the machinery does not wear out, the clock will keep going.

## Population of India.

The last Indian census shows that in the last ten years the natural growth of India's population has been 27,500,000. The population now numbers 286,000,000. One can hardly appreciate what these figures mean except by comparison. India contains more people than all Europe, exclusive of Russia. Its provinces are as populous as great European states. Bengal contains a population larger than that of the United States and all British North America, and fully one-fifth of the entire human race lives upon this little peninsula jutting out from the coast of Asia into the Indian Ocean.

## HUMOR OF THE WEEK.

### STORIES TOLD BY FUNNY MEN OF THE PRESS.

Many Odd, Curious, and Laughable Phases of Human Nature Graphically Portrayed by Eminent Word Artists of Our Own Day.

#### Equal to the Occasion.

"Now, dearest Ethel," said the ardent lover, "since you have answered yes to my proposal, I presume I shall not be too bold if I ask for a kiss."

"Not in the least," the guest answered. "Why do you ask?"

"Because," was the reply, "the death-watch is sometimes heard in this room, and I wondered if you would mind."

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#### Safer Than Any Safe.

Wishlets—These summer resorts are so full of all kinds of crooks, that for fear of being robbed, I always leave my money in the hotel safe.

Bishlets—I have a much better plan.

"What is it?"

"My wife carries the boodle in her dress pocket."—Brooklyn Eagle.

#### An Early Bird, Etc.

She (new to rural life)—So that is an apple tree?

He—Yes.

"Why doesn't it blossom?"

"It's a trifle late for it to blossom."

"Well, let's get up early to-morrow morning and see it blossom then."—New York Herald.

#### How to Treat Drowned Men.

Little George Washington—Oh, pappy, I've done learned a powerful lot in my school to-day. I've learned what to do with a drowned man when you find him in de water.

The Old Man—G'way, child!

"Yes, I did, pappy! Did you ever find a drowned man?"

"Course, yes; jots ob dem!"

"Den what'd you do de berry fust ting?"

"Me? Oh, I jes' go froun deur pockets to see if dey hab anyting wulf takin'."—Boston News.

#### An Expensive Diet.

Mrs. Canby—Oh, Titus, the baby has swallowed a hairpin!

Mr. Canby—That's it; just as I expected. Now, you'll want money to buy some more. It's nothing but money, money, money, in this house the whole blessed time. I'll bet that baby has swallowed more than \$50 worth of hairpins in the last three months. Now, madam, this thing has got to stop right here—either that baby will quit eating hairpins and come down to common grub like the rest of us, or I'll know the reason why—you understand?—Epoch.

#### His Natural Stopping-Places.

"Where did you spend your vacation, Lakteel?"

"I made a tour of the watering places, Bangle."

"O, yes, of course! I forgot for the moment that you were a milkman."—Pittsburg Chronicle.

#### A Solution at Any Cost.

Giddings—Did they catch the fellow that tried to pick Mrs. Waight's pocket yesterday?

Rawley—No; but he gave himself up.

"What did he do that for?"

"To force her to testify whether she had a pocket or not."—Puck.

#### Goodness Its Own Reward.

Mrs. Ponsonby—Why, my dear, what has become of all the jewelry you used to wear so much?

Mrs. Popinjay—I have given them up to save the heathens.

"How good of you?"

"Yes, but I will get my reward. Harold will buy me a new set of the latest style."—The Jeweler's Circular.

#### A Groundless Complaint.

Grieved Guest—You advertised fresh fruit every day; and I've been here two weeks and I have not seen a single piece.

Shrewd Host—You haven't! Well, what's the matter with them tomatoes right there in front of you?

"Well, tomatoes and fruit are two very different things."

"They be, be they? Well the next time you lay out to pass the summer in a family of culture, you'd better put a little botany into you."—Boston Courier.

#### Highly Accomplished.

Miss Breeze, of Chicago—How did you like my gentleman friend from St. Louis?

Miss Wabash, of ditto—Oh, wan't he nice? I love to watch him eat.

Miss Breeze—Yes, he carries his knife to his mouth so graceful.—Boston Courier.

#### A Rose with the Thorn.

Griffin—Then there is no hope for me, Miss Julia?

Miss Julia—None, Mr. Griffin, I'm afraid, but I'll be a sister to you.

Griffin—That'll do nicely. We'll mention it to your father that I'm your brother now, and then, perhaps, he'll treat me a little more civilly.—Drake's Magazine.

CHARLES ALGERNON SWINBURNE, the fleshy poet, has been visiting in a house in Cheltenham which was originally built for and occupied by Sir Walter Raleigh. We should think Sir Walter's ghost would haunt him for the remark Swinburne once made, after going through every room in one of the London clubs, looking for one in which there was no tobacco being smoked: "King James was a scoundrel of the deepest dye; but I honor and respect him, because he slit the throat of that other villain, Sir Walter Raleigh, who introduced the custom of smoking in England."