

### THE BATTLE SHIP "VICTORIA."

#### The Most Powerful Fighter Afloat.

The greatest of all battle ships now afloat is her Majesty's war ship named in her honor, the Victoria. In the size of her guns, the thickness of her armor plating, and the power of her engines there is nothing like her. Some cruisers have engines of a little greater power, but have neither the guns nor the armor. A few battle ships mount guns of equal size, but have neither the armor nor the engines. The Victoria is without a rival—theoretically.

The Victoria was built at the works of Sir William Armstrong at Elswick on the Tyne. She is about 350 feet long over all (340 between her stem and her stern post), 79 feet broad, and when loaded with coal, stores, and ammunition draws 26 feet 6 inches of water. Her displacement is 10,500 tons and her engines are 12,000 horse power indicated.

She carries, first of all, two rifled cannon that weigh 110 tons each, the diameter of the bore being 16½ inches. They are a little over 43 feet long. The projectile to be fired from these guns weighs 1,800 pounds, and the charge of powder that propels it weighs 960 pounds—nearly HALF A TON OF POWDER.

Each has a nominal range of 16 miles. A man has to stop and consider that although in the original Monitor the guns were of 12 inch calibre, the projectile was propelled by 15 pounds of powder. He has to do this to fully comprehend what a modern rifle is.

These two great rifles are mounted in a turret placed well forward on the deck of the ship. This turret is covered with steel armor 17 inches thick. The bottom of this turret is enclosed in and protected by a steel wall or barbette that is 18 inches thick. This wall extends down into the ship far enough to protect the machinery that revolves the turret and hoists the ammunition. To handle these guns—load and aim them—no less than 29 hydraulic engines, including pumps of 2,000 horse power, are necessary. The arc over which the guns can be fired extends from 50 degrees abaft the beam on one side, around over the bow, to 50 degrees abaft the beam on the other side.

At the stern of the ship is a single long rifle, that has a bore of ten inches and fires a projectile weighing a quarter of a ton, with a charge of 250 pounds of powder. This gun is mounted in a remote degree like the superstructure on the American ships Boston and Atlanta. On this superstructure, mounted as broadside guns, are twelve rifles with bores six inches in diameter, which throw a projectile weighing about 125 pounds. These guns project through porches that have short-proof shutters.

In addition to her cannon the Victoria carries twelve little rifles, each of which will throw a dozen six-pound steel bolts a minute with amazing power and accuracy, besides a host of the sort of rifles called murdering guns, because of the hail of death that they could shower on an exposed enemy.

In addition to the armor on and about the turret, this ship has what is called a protective belt. It is a shield of steel

#### EIGHTEEN INCHES THICK

that extends from the main deck down to a safe distance below the water line. This shield is 152 feet long and it is placed, of course, along the centre of the ship on each side so as to protect the machinery and the men that work it. The ends of the shields are joined by a heavy bulkhead across the ship.

The main deck rests flush with the top of this belt of armor. It is made of steel three inches thick and is supported by beams below so that shots striking it would be deflected.

The protection afforded to the men working the guns in the superstructure, as distinguished from the turret, is much less, but there is no safer superstructure afloat than this. As already stated, in the matter of armor there is no ship her equal afloat.

To drive this great hulk there are twin screws of sixteen feet diameter, driven by triple expansion engines that under forced draught and working up to the limit have forced her through the smooth water over the measured mile at the rate of 16½ knots an hour. She has coal bunkers that will hold 1,200 tons of coal, or enough to drive her 1,600 sea miles at full pressure. At cruising speed she could steam 7,000 miles.

Her magazines are the largest afloat, and she can carry 160 rounds of ammunition for her big 120-ton guns, and much greater supplies for the smaller guns.

She is lighted throughout by electricity, by which also her guns are fired.

Such is the greatest ship which the best naval constructors of the foremost naval power of the world have been able to produce. To a power of offence so great that the ordinary mind can scarcely comprehend it she adds a defensive armor that is all but invulnerable. She was built and armored at a cost of millions of dollars, her largest cannon alone costing over \$100,000 each.

#### Marriage and Divorce.

Commissioner Carroll D. Wright's recently published report on the marriage and divorce laws of the various States contains much curious information. It is stated, for instance, that a Pennsylvania statute declares that "all marriages not forbidden by the law of God shall be encouraged." In Dakota a man and a woman may become married by "joint declaration." Twenty-one States have laws validating bogus marriages where ever one of the parties believed at the time of the pretended ceremony that it was legal. In Michigan and Wisconsin a sentence of imprisonment for life dissolves the convict's marriage without any other legal process. In Arizona six months' abandonment is ground for absolute divorce. In Tennessee refusal on the part of a wife to remove with her husband to that State is good ground. Many other queer provisions might be cited all illustrating the great diversity in the laws governing marriage and divorce across the border, and the extraordinary character of many of them.

#### The Fire Bell

Ring out an alarm and it is heeded. This is to notify you that bare substitution is practiced when the great, sure-pop corn cure is asked for. Patnam's Painless Corn Extract never fails to take corn off. It makes no sore spots and gives no pain. Be sure and get "Patnam's."

"So your daughter has married a rich husband?" "Well," slowly replied the father, "I believe she has married a rich man; but I understand he is a very poor husband."

### Children Now and Then.

A significant hint of the condition of our ancestors as to humanity may be found in the reports of the ravages of the plague in London.

"Six thousand," says the chronicler, "have died during the week, but of these two-thirds were only children."

It is difficult for us to comprehend the general brutality, and the lack of pity and kindred emotions, among our forefathers only seven generations back.

The torture of animals was the most popular amusement. The "good" Queen Bees and her ladies delighted in watching the agencies of a baited bear or bull; the children of the poor were cruelly overworked, and died by hundreds in the mines yearly. Even the children of the wealthy, God-fearing families were taught to serve God only at the point of the rod. Savage beatings only a generation ago were part of the daily discipline in many families.

The strength of Christian feeling in the present day finds no higher or more beautiful expression than in the tenderness and care shown toward children. The exodus of thousands of poor little ones from American cities every summer to the mountains and sea-beaches is as sure a testimony to the power of the good God among men as was the going out of the host of Israel from Egypt.

The whole force of modern civilization is directed to their training, to making them strong, happy and good.

The old heathen Anaxagoras, when he was dying, was asked what was his last command.

"That all the children may have a yearly holiday on the day of my death," was his reply. "Then they will sometimes be glad that Anaxagoras ever lived."

The modern American does not wait for death to make the children about him happy.

Whatever may have been the golden age for adults, yours is now, children. It is worth your while to contrast your own standing-ground with that of the child of two centuries ago, that you may rate your chances at their just weight and value.

#### Egg Spinning.

A writer in the "Scientific American" describes three very simple experiments, which show some of the phenomena of fluid friction. He directs the experimenter to take two eggs, one raw, the other hard boiled, and suspend them by wires from a gas-fixture or other support, their long axes being vertical. Then if they are gently turned around once or twice, it will be found that, while the boiled egg continues to turn, the raw one comes immediately to rest.

This difference is owing to the fact that the boiled egg is a solid body and the whole egg turns; while the raw egg is a fluid contained in a shell, and the shell alone is turned by the twisting of the wire, the fluid remaining stationary.

Sir William Thomson who devised this and the following experiments, uses it as one of the proofs that the earth is a solid body, and not, as some have supposed, a thin crust of rock surrounding a fluid or "pasty nucleus." In that case, he says, "the observed swinging and swaying motions of the earth's axis in procession and nutation would be impossible."

The same phenomenon is shown in the following experiment, though in a directly opposite way. Take the two eggs and spin them rapidly on their sides on a mirror or other perfectly smooth surface. If you put the palm of your hand gently upon the boiled egg while it is spinning, it of course ceases to move and remains motionless after you have lifted your hand.

But if you do the same with a raw egg, it will immediately begin to spin again when the hand is removed. Indeed it is extraordinary how long you can hold your hand upon it without destroying its motion. The reason of this is no doubt apparent. The fluid within the shell continues to revolve, though the shell is stationary, while in the other case the whole egg is stopped!

If you attempt to spin the eggs on the mirror like a top, you will find that the boiled egg will spin for a considerable time, but the other will fall almost immediately on its side. "Professor Mendenhall has remarked that this experiment furnishes a solution of Columbus' problem—how to make an egg stand on end: first boil the egg hard, and then spin it."

#### A TAILOR'S GOOD FORTUNE.

He Wins \$15,000 in the Louisiana State Lottery.

Lightning—not political, but financial—struck in the region of Baltimore rather heavily at the last drawing of the Louisiana State Lottery. Besides the numerous small prizes of \$5, \$10 and \$20 drawn by Baltimoreans, Mr. Joseph Kass, a tailor living at 424 North Castle street, had the extremely good fortune to hold one twentieth of tickets 93—which entitled him to \$15,000. It goes without saying that Mr. Kass is highly elated over his good fortune.

Mr. Kass said yesterday that he has been in the habit of buying tickets in the Lottery for the past two years. In all that time he has not missed drawing some prize. They were in small sums, however, and only encouraged him to continue courting Dame Fortune. Just what to do with the money Mr. Kass is undecided.

The fortunate gentleman is a native of Germany, but has been living in Baltimore for 20 years. He has a small tailoring establishment in the rear of his dwelling and has been employed by the leading clothiers of this city.—[Baltimore (Md.) Herald, December 3.]

#### Consumption Surely Cured.

To the Editor:—Please inform your readers that I have a positive remedy for the above named disease. By its timely use thousands of hopeless cases have been permanently cured. I shall be glad to send two bottles of my remedy free to any of your readers who have consumption if they will send their Express and P. O. address. Resp'y, T. A. SLOCUM, M. C., 164 West Adelaide St., Toronto, Ont.

#### Knocked out by the Black Crook.

Miss Backbo—"I suppose you are fond of scenery, Mr. Dearborn?"  
Mr. Dearborn—"Yes; immensely."  
Miss Backbo—"Do you prefer Mont Blanc to the Yosemite?"  
Mr. Dearborn—"I think the 'Black Crook' knocks them both out."

### "The Manly Art of Self Defence."

Giving "blow for blow" is often more thought of, than that other "art of self defence," which consists in defending one's own system from the assaults of disease and neglect. When dyspepsia, constipation, biliousness, "liver complaint," jaundice, and the like lay hold of the system, the best defence is the immediate use of Dr. Pierce's Pleasant Pellets; tiny, sugar-coated granules, made from concentrated vegetable extracts; one a dose.

Unless a tree bears blossoms in spring we may look in vain for autumn fruit.

#### Hoopskirts Again

may come into style, but it is hoped not. The transformation which will bring back that style of orinoline ought to be indefinitely postponed. Transformations in the health of thousands of women throughout the country have taken place during the past few years. Pale, haggard, and dispirited, they have become bright-eyed and healthy. The secret? Dr. Pierce's Favorite Prescription, which cures all those chronic "weaknesses" and distressing ailments peculiar to women.

It is only by labour, says Ruskin, that thought can be made healthy and only by thought that labour can be made happy.

If all so-called remedies have failed, Dr. Sage's Catarrh Remedy cures. 50 cts., by druggists.

How can we expect that another should keep our secrets when it is more than we can do ourselves?

#### Alma Ladies' College.

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Culinary Query.—Should a cook curry a chicken with a coxcomb?

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#### A Happy Transition.

After five years' suffering from dyspepsia, my wife got cured in one month by the free use of St. Leon water. We prize it highly, the transition it brings from misery to fine health is so grand and permanent. To this hour not a pang. Feel so good and hearty will take pleasure in answering any inquiries. JOSEPH PRICE, 349 Davenport road, Toronto. Place your winter orders now. "Impossible to overrate the value of St. Leon," say physicians.

A. P. 481

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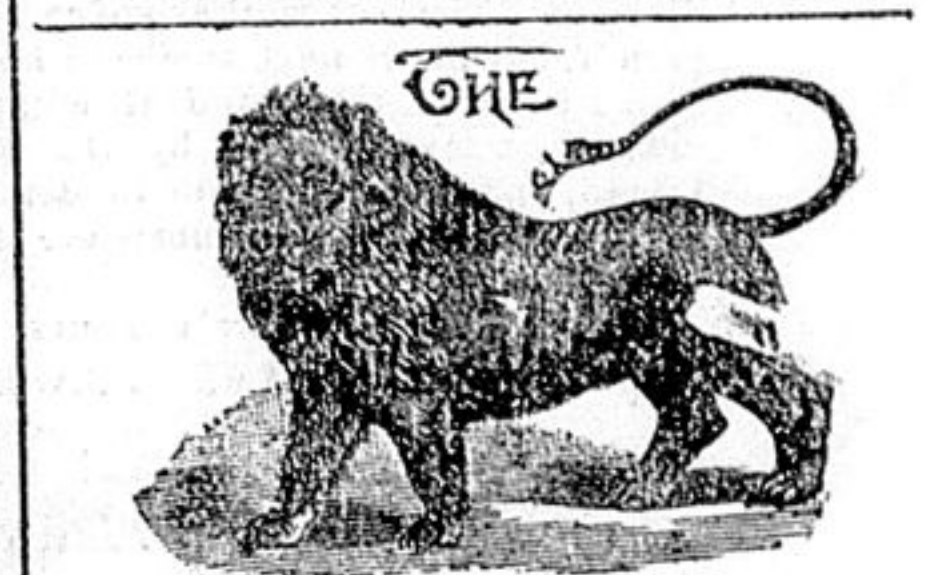
JOSEPH MADDAUGH WRITES FROM MORRISON P. O. Nov. 26th, '89. Now that I have purchased from you one of your Standard French Burr Chopping Mills, turning in on it as part payment my Iron Grinder, I have no objection to tell you that the Plates used in the Iron Grinder cost \$1.00, and lately but \$1.00 per pair. I used over \$50.00 worth last winter. Occasionally a Plate would last a week, but sometimes not over two or three hours. The price of the Mill was \$65.00, much cheaper than yours, but in the end it was a very much dearer Mill. I am satisfied that Iron Grinders are only suitable for farmers who have a very small amount of Chopping to do for their own use. J. COMEAU, MAIRWAKE, QUE., WRITES: Nov. 23rd, '89. I would feel inclined to apologise for not writing sooner had I not been too busy, and my desire to give the 20-inch Standard Mill a fair trial before writing. I am the most happy to state that I am entirely satisfied with the Mill—it is doing splendid work. FOR SALE. Two No. 3 Iron Grinders at \$15.00 Each. Three No. 2 Iron Grinders at \$25.00 each, all in good order with new plates.

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