UNCLE SAM'S SHIPS.

WALTER WELLMAN WRITES ABOUT THE NEW AND IMPROVED NAVY.

Beautiful Models That Are Attracting General Attention—What It Costs to Build and Man a Modern War Vessel. Guns and Armor Plate.

[Special Correspondence.]

WASHINGTON, Jan. 21.—Now that there are rumors of war with Chili, I would like to have you step into the navy department with me and take a look at the models of the new ships. Of these there are seven or eight, standing in their glass cases always surrounded by visitors. Each is a masterpiece of workmanship, every one a thing of beauty. No wonder we hear from all sides such exclamations as "wonderful," "grand," "majestic." Each model is an exact duplicate in miniature of the ship which it represents. The smallest detail is reproduced, and everything is in precise proportion.

The people who come to look at these beautiful models gain from them a better idea of what a modern naval vessel is than they could by a visit to a man-of-war itself. Here the entire craft is under inspection at one glance of the eye; here all details and proportions are brought into easy comparison. And it is a satisfaction to note with what pride the visitors behold those miniature duplicates of our new naval vessels, with what enthusiasm they speak of the new found ability of Uncle Sam to protect his subjects and his honor in the uttermost quarters of the earth. These models kindle the enthusiasm and the patriotism of a people who don't want to fight, but by jingo, etc., in a remarkable manner. I was looking at the models the other day when Secretary Tracy came up with a young woman. She had not seen the models. When her eyes beheld them she lifted up her gloved hands and exclaimed, with just a trace of bitterness in her tone:

"Oh, I wish I were a man—how I would like to be a man!"

"Why?" asked Secretary Tracy.

"So I might be a sailor on one of those beautiful, those majestic ships," was the reply. "I would rather be a sailor on the New York than—than"——

"Secretary of the navy, you were going to say," interrupted General Tracy with a smile.

"Yes, or president of the United States either," added the enthusiastic young woman.

"This only goes to show the value of those models as object lessons," commented Secretary Tracy. "I have been advised to send the models to all the large cities of the country for exhibition. Senators and congressmen tell me if I would do so a public sentiment could be created which would demand the expenditure of a hundred millions of dollars a year for the new navy. But I have no authority to send the models out for such purpose; they will, however, all be exhibited at the World's fair."

Visitors to this hall of models see the very ships on which we depend for the humbling of the arrogant Chilians. They learn at a glance that the old navy is a thing of the past. The day of wooden walls and smoothbore guns, fired by loose powder and using spherical projectiles, is gone forever. The old time sailor has disappeared, too, and the romance of navigation, of jack tars strung along the yardarms in peaceful review, or cutting away the rigging in storm or battle, belongs to the past. The man-of-war of the present is a big steel and iron machine, and the men on board are machinists rather than sailors. With double sets of great engines, twin screws, steam pumps, elevators and hoists, power tackle, electric lights and signals, steam and hydraulic hoists for shot, and hydraulic apparatus for turning turrets and shifting guns, the modern man-of-war is simply a series of machines.

The ship itself is a floating machine, the high power gun is a machine, the crew is organized and disciplined into a machine which moves like clockwork, without much sentiment or display of bravery until some part of the physical machine gives way; then the man comes to the front. In this multiplication and elaboration of machinery we see what a perfect and costly piece of mechanism, what a triumph of human skill and ingenuity the modern fighting ship has become. It is said there are in a complete new ship, like the New York or Philadelphia, thirty distinct machines. No one fact could better illustrate the idea that war at sea is now mechanical rather than heroic. It is even thought by some critics that the development of the mechanism of fighting has gone too far: that the offensive machines are too complicated and too liable to derangement in whole or in part, which will render them useless.

As I looked at the models I was struck with the fact that shipbuilding ingenuity has not yet devised protection for the ship's boats. Everything else is protected. The coal bunkers, containing when full 500 to 850 tons, are ranged alongside the boilers and engines, so that a shot to reach a vital part of the ship must pass through thick walls of coal besides the eight to twelve inches of steel plates. The decks are all curved and of steel from two to five inches thick—thickest where the most protection is needed. Along the hull on either side runs a broad belt of steel, from ten to fifteen inches thick, adding additional protection to the boilers and engines.

These protected cruisers—for, mind, they are not battleships—are built on the theory that wherever a shot can get through them not much damage would be done, and where the damage can be done the shot can't get in. The great guns are protected by enormous turrets in the Monterey and Miantonomah, and by heavy barbettes or hoods of armor in the other ships. The magazine is away down in the hold of the ship, so far below the water line that a shot could scarcely reach it, and the wall through which the oblong projectiles and powder bags—with powder like lump sugar—are hoisted to the breech of the gun is armor protected.

There is protection in the speed also. Ten years ago a speed of twelve knots was considered very fast. Now we build for nineteen or twenty and get it in a spurt, with ability to maintain sixteen or seventeen knots hours at a time. In the Baltimore, San Francisco and Philadelphia we have three of the fastest cruisers afloat. Speed is protection, because the unarmored naval vessel is expected to be fleet enough to run away from the enemy which she dare not fight. The battle ships, thick with armor, terrible in their offensive power, are not built for speed, being expected to cope with anything that comes along. Such are the Miantonomah and Monterey, the former just put into commission at New York and the latter now ready to receive her great guns, whose transportation by rail across the continent recently attracted much attention. These fighting ships are only one-half as speedy as the armored cruisers.

There is safety in the twin screws, for they enable the vessel to be maneuvered so much more easily. Even the commanding officer is protected. No Farragut in the rigging, trumpet in hand, shouting through the darkness, "D—n the torpedoes—go ahead!" in modern naval warfare. By looking carefully at the models you will see "the bridge," which is the elevated platform well forward on which the captain stands to give his orders by word of mouth or by manipulation of the many signal levers by his hand. Underneath is a sort of blockhouse with walls of solid metal fifteen to twenty inches thick, and running horizontally around it a small opening much like a crack. It is into this steel wall, called the "conning tower," that the commanding officer goes in an engagement. Here are more levers and signals, and here, almost as safe as if in his favorite nook in the army and navy clubhouse in Washington, he may look through the crack, see what is going on and give his orders accordingly.

Everything appears to be protected, I say, except the boats. There are many of them—yawls, pinnaces, lifeboats, gigs, even steam launches—but all are hung above the deck, fair marks for the enemy's big guns and his innumerable rapid fire Hotchkisses and Gatlings.

"Would not these boats be shot to pieces in a severe engagement?" I asked a naval expert.

"Certainly; we expect that. But there is no way of protecting them."

"Then, how could you escape in case of disaster to the ship?"

"We couldn't. We'd have to go down with the ship."

So it appears modern ingenuity has protected everything but the human part of the machine, which, after all, is the cheapest part of it.

Do these great fighting machines cost much money? For an answer look at a few figures: The San Francisco, now on her way to Chilian waters, cost a little more than $2,000,000—construction, armament and equipment. She is the most costly of our new vessels now in commission. The Philadelphia, Baltimore and Newark each cost about $1,800,000, complete. The Atlanta and Boston cost $1,000,000 apiece and the Yorktown $700,000. These are very small figures compared to the cost of some of the ships which we are now building. The most costly vessel now on the stocks in this country is the Oregon, which is to be a monster floating fortress of 10,200 tons, with 2,700 tons of armor plate protecting her hull, and to cost, complete, the enormous sum of $5,690,895. Her two sister ships, of the same size, armament and armor thoughout, will each cost about $170,000 less, owing to a difference in the contracts.

The hull of the mighty Oregon is to cost more than $2,500,000, her engines will take $738,000 more, the armor for her hull $600,000, the armor for protection of her guns $900,000, her guns $783,000 and her equipment $101,000. These figures show that building these mammoth modern men-of-war is a luxury which only the richest of nations can afford to indulge in on a large scale. Secretary Tracy tells me the United States now has under way warships which will cost to complete, arm and equip $55,000,000. Great fleets come high, but the United States must have them.

It is gratifying to know that we are building all of our new ships at home. The plans of all but three or four were made in this country too. Another inspiring fact is that the United States is now turning out armor faster than the factories of Europe could do it, and that it is the best armor in the world—a metal which acts as a sort of snowbank, and takes the projectiles hurled at it with Titanlike force and smothers them without cracking or serious injury to itself. Moreover, we are making all our own high power guns, and are making better guns than the English, who have been longer in the business, and as good guns as Krupp or the French can make, who had beaten the world till we started up our factories.

It costs money to man a big ship after it is ready for sea. The first class ships like the Chicago, Baltimore and Philadelphia carry about 30 officers, 300 enlisted men and a marine corps of from 40 to 60 men and officers. The officers of a first class ship of the line are the following: Captain, lieutenant commander, 4 lieutenants, 1 junior lieutenant, 2 ensigns, 9 naval cadets, medical inspector, surgeon, assistant surgeon, paymaster, chief engineer, assistant engineer, chaplain, captain of the marines, gunner and carpenter. The expense of maintaining a first class modern cruiser, pay of officers and men, coal, repairs and general supplies is estimated at $1,300 per day.

This is in time of peace. If fighting is to be done the expense will of course be vastly increased. Repairs may run into the hundreds of thousands of dollars after an engagement, while the cost of firing one broadside from a ship like the Chicago, 900 pounds of metal at one discharge from four guns, is about $600. It is easy to see that a day's fighting with a fleet of such cruisers would make a big hole in the pocket of even as rich a magnate of the earth as our Uncle Sam.

WALTER WELLMAN.

FLYING MUSTANGS.

CHASING WILD PRAIRIE HORSES IN MIDWINTER.

Sturdy Beasts That Make Noble Game for Hunters—How the Stubborn Creatures Are Corralled and Broken—The Wild White Horse.

[Special Correspondence.]

ABILENE, Kan., Jan. 21.—It is when the wild horse wanders far enough from the Mexican border to be within reach that the keenest pleasure comes to the ranchmen. The news that a herd of mustangs is in the neighborhood never fails to arouse an overwhelming enthusiasm, and hunting parties are organized at once.

It is in winter time that these herds come wandering northward, though they seldom reach so high a latitude as to meet severe storms, and it is in winter time that the ranchmen have the time to spend in capturing them. Northern Texas and the western part of the Indian Territory see the creatures frequently.

The hunters, or "mustangers," as they are called, when they hear of the approach of a herd of wild horses, make their start with the intention of remaining away for days and weeks if necessary. Their work also includes the building of a corral in some locality near where the herd is discovered. Taking a provision wagon and tents the hunting party divides the day into three "watches" of eight hours each. One party sleeps, one drives the wagon and one "walks" the mustangs, taking turns in the different tasks.

Crawling slowly over the prairie the hunters locate the herds in companies of from twenty-five to one hundred undersized but sturdy animals. The ponies once discovered, the hunters prepare for action. The first man leaves the wagon and takes the trail on foot. He makes no attempt at overtaking the wild equines, but steadily and patiently walks after them for eight hours, when he is relieved. All the time the follower keeps the horses on the move and as much as possible away from water courses. In the scantily watered regions this is not difficult.

The theory of the hunt is to keep the ponies going night and day without food or water until they are exhausted. So far as possible they are directed in a circle about the corral, which is intended for the final goal.

At the start the gay and festive mustang kicks up his joyous heels and tosses shaggy mane and tail in contempt for the slow and plodding pursuer. The solitary hunter walks on and on, and at last the horses realize that the steadily marching plodder is not to be shaken off and become less and less frisky. Then they settle to a walk and soon are also plodding along over the prairie.

When the first "watch" is finished the wagon drives up and another of the hunters begins his tramp. At its close number three starts in, and so the day and night wears away. Another day and night repeat the programme and the chase continues without intermission or rest until, without having food or water since the hunt began, except for the snatches seized as they walk, the starved and weary mustangs totter along almost as tame as house dogs. When their gay and frivolous nature has been sapped their drooping heads are turned toward the corral. Soon, as unresisting as sheep, they are driven in. With a light covering of snow the task is most quickly accomplished, as starvation's pangs come more quickly.

Another method is to run a wild horse down, but only an Indian can do this, as it requires the ability to run a hundred miles or more without rest or refreshment. This no white "mustanger" can do. The Indian rides toward a herd, "cuts out" or selects his choice and chases it up hill and down, over hill and stream, among rocks or underbrush as relentless as fate. When his own horse is tired out he pickets him and takes the chase on foot. He carries no weapons and wears the lightest possible clothing. When the wild horse is wearied out it is taken prisoner easily, having been worsted in a trial of mere brute strength. This method, too, is only practicable in winter, with snow on the ground, in order that the trail may be easily followed if the horse gets out of sight. Usually the animal will be run down in the first seventy-five miles, but 150 miles is sure to exhaust his strength.

There is still another plan which a single hunter can follow. It is called "creasing," and can succeed only when a crack shot pursues it. Selecting a favorite watering place of the herd the "mustanger" puts himself in ambush, with rifle ready, awaiting the coming of the horses. At length the trampling of impatient hoofs is heard, and following the lead of a stalwart brute the mustangs gather about the refreshing pool to quench their thirst.

Now is the hunter's chance, and making a selection of some finely proportioned animal the rifle comes to the shoulder, and taking careful aim at the curved necks that bend over the water course "bang" goes the weapon and the pony is sprawling and kicking in the mud, while its companions go skurrying away as on wings of wind across the plain.

"Creasing" consists in striking accurately and exactly the spinal column of the horse, and requires not only an exact knowledge of anatomy but unerring skill with the rifle. If the bullet strikes too low the spine is broken and the pony is killed; if too high, only the skin is cut and the horse goes flying away much frightened but little hurt. If placed aright the shot stuns the animal for a moment—long enough for the hunter to run forward and buckle a pair of hobbles on its forelegs and noose a lariat on its neck. Soon consciousness returns, but the mustanger is master of the situation and has added another horse to his possessions. The wound seldom proves injurious afterward.

Once captured and in the corral the wild horse's troubles have only begun. The short winter days will see many a cruel experience before the animals captured are "broken" and ready for saddle or harness. Going into the corral the horsemen deftly throw their lassoes over the horses' heads, one at a time, and in a moment the noose comes taut and the choked animal is on his side. Without ado a heavy bridle, with cruel Spanish bit, is forced on the half unconscious steed, and then a Mexican saddle, with high pommel and back and double bands, is adjusted.

When the noose is loosened the victim is nearly crazed with fear of the strange trappings with which it is accoutered. At the end of the long lariat the horse circles, bucking, leaping, rolling and kicking in the vain effort to rid itself of the queer burden. Should the horse halt, a heavy "snake whip," made of leather and handled by the mustangers with the skill of an artist, cuts the tender skin, leaving great ridges and sending the animal onward.

A couple of hours or less is sufficient to completely weary the horse, which is now in a lather of sweat, and at this stage in the game one of the men approaches and swings himself into the saddle. Again the kicking commences, and it is only an expert rider who can keep his seat. Sometimes the frightened creature rears so high on its hind legs as to fall backward, and then the rider must be quick not to be caught beneath.

The long bit now comes into play, and the horse feels for the first time the influence which is to guide its steps through life. Soon the intrepid rider throws off the lariat and the perspiring mustang goes jumping and kicking away. Sometimes the bucking—consisting of putting the feet together and humping the back suddenly—becomes so severe as to throw the rider, but not often. Long, sharp spurs urge on the beast and the bit is used unmercifully, often cutting the mouth until a sensitive onlooker is shocked.

The "breakers," however, assure one that it is the only way to succeed, and as at the end of an afternoon's struggle they have so tamed a wild animal that any man can ride it, or it can be harnessed beside a broken horse and driven, results speak for themselves. The second hitching up is almost but not quite as much of a task as the first, and it is weeks before the newly broken horse can be handled easily. A mustang is never trustworthy, but is always hardy and fleet, hence the animals bring a fair price—thirty to seventy-five dollars—in the markets as riding ponies or driving horses for liveries, etc.

CHARLES MOREAU HARGER.

Barnum's Birthplace.

[Special Correspondence.]

BETHEL, Conn., Jan. 21.—Bethel, in common with Danbury, of which it is really a suburb, has long been noted for its hatting industries. But Bethel has another claim to distinction. In this quiet village the great American showman first saw the light of day. The house where he was born stands on the street leading east from the central square, on a high bank above the road, on the north side. It is a neat wooden house, and sports a white coat of paint and green blinds. Directly in front of the house, in the middle of the street, is an immense elm tree, which has stood there since a time long antedating the memory of the oldest inhabitant. It is a grand old tree, and is apparently still good for fifty years of life.

Though P. T. Barnum made Bridgeport his home and established the winter quarters of his show there, he always kept a warm spot in his heart for Bethel. He had a handsome fountain made to his order in Europe, and set it up at his own expense in the public square of the town. Many of the old timers recall his early life as storekeeper and editor. The most exciting incident was his imprisonment for sixty days in the county jail for printing uncomplimentary notices of the town officers, and otherwise freely expressing his mind, in his sheet bearing the sounding title of Herald of Freedom. The people admired his stand, and when he was released in Danbury they drew him in a coach through the streets in triumph. What advertising possibilities this incident would have had for the "genial showman" had it happened at a later period in his growth! No one ever had a keener perception of the money value of publicity or was more skillful in catering to the curiosity of mankind.

P.

Memories of James Lick.

SAN FRANCISCO, Jan. 16.—No rich man ever lived and, dying, left his millions for the public good whose bequests were in such bewildering contradiction of his whole life as were those of James Lick.

He never showed the slightest interest all through his long life in educational affairs or the progress of science. But his great bequest for the founding and endowment of the Lick observatory was one of the most magnificent contributions to the weapons of science that this century has seen.

Mr. Lick probably had no idea how important a thing he was doing. What he wanted was to have the biggest telescope in the world as a monument to his grave. That his feeling about it was essentially theatrical is proven by the fact that he wanted to have his actual bones lie directly beneath that telescope. And they do. The machinery by which the great tube is turned rests upon the marble monument which covers the old man's dust. Some of his friends think that Lick had a vague idea that he wanted the astronomers to find out by means of his big telescope whether or not the moon is inhabited. But I can't believe that he cared the snap of his finger about the moon.

His first intention was to leave a bequest for the building of a high monument, bigger and higher than any other monument in the world, over his grave. But one of his friends, a man with some interest in astronomy, persuaded him that an observatory with the biggest telescope in it that had ever been made would be a greater and more enduring monument to his name than a mere pile of brick and marble.

F. K.