

**THE WAR SHIP NEW YORK.**

Never before in the history of our navy has the trial trip of a war vessel attracted such general attention as was excited by the final speed test of the new cruiser New York, on May 22, when, as already noticed in these columns, the vessel proved herself in every way worthy of the great expectations she had aroused, and in the highest degree creditable to the skill of American shipbuilders. It was, in fact, this last point, more than any other, which so greatly raised the public interest in the matter, for while European nations have been for a quarter of a century competing with each other as to which could build the most efficient war ships, the United States has been doing comparatively nothing until within a very recent period. And now our first really large all-around war vessel may be said, without exaggeration, to have broken the world's record, for in her trial trip she attained a speed of 21.07 knots per hour, and her mean speed for four hours, corrected for tidal current, as given by the official report of the naval board, was "at the rate of 21 knots an hour."

The official report says: "The performance of the engines, boilers, and accessories was excellent, reflecting credit upon the builders. Nothing less than the best material and workmanship could have produced boilers and engines to stand so prolonged and excessive a strain without a breakdown in any part. Not a journal heated unduly nor was any water used on bearings except as a matter of precaution." In conclusion, the naval board having charge of the trial, of which Rear Admiral Belknap was president, "feels justified in recording its opinion that in the New York the navy of the United States will possess a vessel which, as a combination of superior speed, good armored protection, disposition of battery, excellent sea-going qualities, and rare habitability, leaves little if anything to be desired for the purpose she was designed to fulfill."

The contract price of the New York with the firm of William Cramp & Sons, of Philadelphia, was \$2,985,000, and the firm receives, as heretofore stated, \$200,000 for obtaining the extra speed on her trial trip, as the vessel had been designed to make only 20 knots an hour. Her length is 380 feet 6½ inches; beam, 64 feet; mean draught, 23 feet 3½ inches; displacement, 8,150 tons. Her ram bow and high freeboard are conspicuously noticeable as the vessel is seen at anchor, the 8 inch rifles she carries being 25 feet above the water. She has two of these rifles in a barbette forward on the upper deck, two in a similar barbette aft, and two are carried in broadside amidships on the upper deck. She has also twelve four-inch rapid fire guns, eight rapid fire six pounders, four rapid fire one pounders, and four Gatling guns, besides six torpedo tubes, one in the bow, one in the stern, and two on each broadside. The men working the rifles in the barbettes are protected by 10 inches of steel armor, those working the six pounders by 8 inches of armor, and the revolving conical steel shields are 7 inches thick. The sloping protective deck at the sides goes 4 feet 9 inches below the water amidships and 1 foot above, when the vessel is at mean draught, and is covered with plating 3 inches thick amidships, where the slopes have an additional 3 inch plating, making a thickness of 6 inches.

Her four vertical direct-acting triple expansion engines, for operating her twin screws, are located in four separate watertight compartments. The diameters of the cylinders are 32, 46, and 70 inches respectively and the stroke is 42 inches. She was designed to have 16,500 horse power.

The steam is supplied by six double-ended main boilers, arranged two abreast in three watertight compartments, with six athwartship firerooms. In making her run home from Gloucester, Mass., the second day after the trial, the forward engines were uncoupled and the vessel was run for eight hours under two engines and four boilers, the vessel then, under easy running, making about sixteen knots an hour.

The official report shows that the power developed on the trial was as follows: Forward starboard H. P. engine, 1,328.03; I. P. engine, 1,398.73; L. P. engine, 1,568.33; after starboard H. P. engine, 1,372.86; I. P. engine, 1,369.46; L. P. engine, 1,598.24; total for the starboard engines, 8,635.65. Forward port H. P. engine, 1,318.78; I. P. engine, 1,392.09; L. P. engine, 1,459.77; after port H. P. engine, 1,295.27; I. P. engine, 1,342.46; L. P. engine, 1,503.27; total for port engines, 8,311.64; grand total of main engines, 16,947.29.

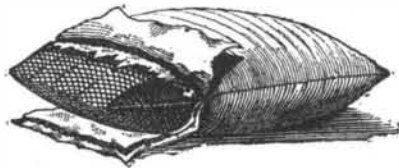
**Buddhist Pictorial Wheel of Life.**

The wheel of life or cycle of existence is one of the most familiar frescoes that adorn the interior of Lamaic temples. It depicts in symbolical and realistic form the fundamental doctrine of metempsychosis. It consists of a large disk with two concentric circles, the circular form symbolizing the ceaseless round of worldly existence. The disk is held in the clutches of a monster who typifies the passionate clinging of worldly people to worldly matter. In the center are symbolized the three Original Sins, and round the margin is the twelve-linked chain of causes of Rebirth,

while the remainder of the disk is divided by radii into six compartments representing the six regions of Rebirth. In the upper part of the region representing hell is the Bardo, or state intermediate between death and the great judgment. Outside the disk, in the upper right-hand corner, is a figure of Buddha pointing to the moon (with a hare in it), and in the left-hand corner a figure of Chenresi (Sanskrit, Avalokita), the patron god of Thibet incarnated in the Dalai Lama.—*Journal Asiatic Society of Bengal.*

**TORSION BRAIDED WIRE PILLOWS.**

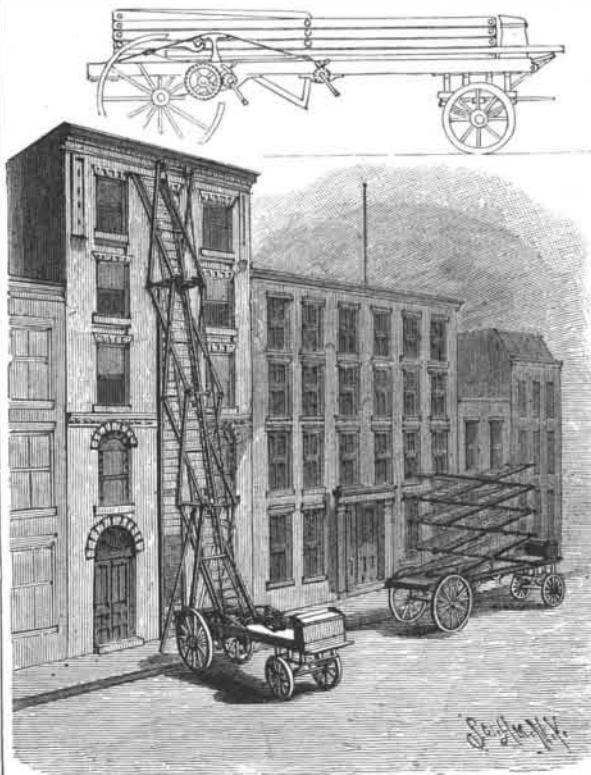
A pillow made of finely braided spring steel wire, plated to resist rust, and upholstered in closed case, as shown in the engraving, offers obvious advantages for use in warm weather, the slightest movement changing the air beneath, so that the head does not



become heated. It is especially recommended for ameliorating the discomforts of sick persons and young children. This pillow is made by the Weston & Wells Manufacturing Co., 1112 to 1116 Noble Street, Philadelphia, Pa.

**AN IMPROVED LADDER AND TRUCK.**

A ladder which can be quickly and conveniently handled, and raised to a great height with safety, and which may be raised in either a slanting or a vertical position, is shown in the accompanying illustration, and has been patented by Mr. Moritz Roessler, Jr., of College Point, N. Y. The improvement is designed to serve the double purpose of a fire escape and a means of facilitating the extinguishment of fires, for it can be raised on a slant as it goes up, and so saves time in moving, and hose may be attached to the ladder and carried up thereby to the windows of a building, or to an elevated platform when the ladder is raised vertically. The main view represents the improvement in position of actual use, a second truck having the ladders partially elevated, while at the top of the picture is a side view of the truck with the ladders in folded position on it. In the inner face of each of the side beams of the truck is a longitudinal groove, forming slideways for rollers on the ends of a cross rod connecting one of the lower end sections of the ladder-elevating frames. Near the rear of the truck is journaled a shaft carrying two drums, each outer end of



**ROESSLER'S LADDER AND TRUCK.**

the shaft having gear and ratchet wheels, and in front of this shaft is journaled a drive shaft adapted to receive crank arms on each outer end, and having pinions to mesh with the gears on the drum shaft. Adjusting arms for giving the desired inclination to the ladder are pivoted within the side pieces of the truck, the forward ends of the arms being segmental and having teeth engaged by pinions on a transverse adjusting shaft having crank arms on its outer ends. The other of the lower end sections of the lower ladder-elevating frame is connected with the rear extremities of the adjusting arms, each of the frames being of like construction, and the two sections of each frame being connected at their centers by a rod, one section fitting in the other. When the ladder is folded down, the lower end of one section of the lower frame is near

the front of the truck, the lower end of the other section being at the rear, and upon the lower connecting bars of the sections are grooved pulleys, each cross rod forming the pivotal connection between the different frames being similarly provided with friction rollers, and over these pulleys and rollers pass cables attached to the drums on the drum shaft, by the rotation of which, by means of the crank arms, the ladder frames are all simultaneously elevated. The ladder itself is made in sections, located on the inner sections of the frames, and when the latter are elevated, as shown in the main view, a continuous straight ladder is formed, except for the slight outward and inward inclinations at the top and bottom. One of the frames also carries a platform, preferably pivotally attached to a cross bar of one of the upper frames, and held in horizontal position by engagement with an opposite connecting rod. When the ladder is erected, it is prevented from sagging by props from the ground connected with any one of the sections of the frames, and a rope ladder may be secured to an overhanging end of one of the frames and made to drop in front of any window desired. The ladder-supporting frames together virtually form a lazy tongs, and when the ladder has been elevated it may be given any desired inclination by turning the crank arm of the adjusting shaft.

**Poison Ivy—How to Cure the Poisoning.**

When you go into the country this summer don't "monkey" with all the pretty plants you may find along the wayside. Especially avoid a twining, beautiful, three-leaved plant you may find growing around the base of trees, stone walls, and old fences. An attractive plant, just the kind of glossy glitter to its bright green leaves as impels one to "just take a little of it home" with you. Don't do it, unless you are one of those few that may with impunity handle *Rhus tox*. That's the botanical name of the plant, that, familiarly known as poison ivy, has caused so much suffering to many.

The writer has suffered, and on many occasions has struggled for its cure by means of neighborly suggestions, by doctor's efforts, potions, lotions, harrowing days of dread and itch. Does it itch? Yes; you'll know when you've fooled with *Rhus tox*, by a strange itch. It's different from any other itch. You scratch it, and it seems as though you had conquered the irritation; it fooled you. You look for a cause, and find none. The skin is normal, no blemish shows, but it itches again. When you are warm and comfortably asleep, you will be awakened up scratching that same spot. You "could dig it out with your nails." You can't do it. That's *Rhus tox* poisoning.

Soon a small, insignificant swelling lumps up where the itch is; then it begins to look watery underneath the skin, but it itches none the less, rather more. You scratch through the skin, the water underneath is released, and the nails and fingers carry the watery poison to fresh spots; possibly to the face, the ears, the body. The same tedious itching, scratching is multiplied. You are now a case for sympathy. Without means of cure, your existence is a realized sheol. I propose, now that you understand the cause and the symptoms, to tell you of the cure. It is simple, it is effective. Procure from the drug or other stores where they are sold a small bottle of little sugar pills, labeled "*Rhus tox*." A "hair of the dog that bit you" will cure you. Take six of the little pills at one dose, four doses the first day—morning, noon, evening, and bedtime. The next day the itching will be mollified a degree. The second and third day, take three doses of six pills each dose. You will, by this time, be so free from irritation that you may carelessly take a few pills until nature heals up the sores. So soon as the healing begins, be very chary of taking many of the pills, as they will, in excess of requirement, produce an intolerable, though harmless, itching over the whole body.

The writer, poisoned on an average four to six times a year, finds this remedy a permanent check on the first appearance of poisoning symptoms. H. M.

**Improved Electric Lamp.**

John Waring, of Darlington, Wis., claims to have discovered that if a carbon in a sealed chamber is surrounded by a gas of great specific density, the dissipation of energy by loss of heat from the carbon is reduced, so that as a factor it may be ignored. By using as a surrounding medium a gas which has no injurious chemical effect on the carbon, the disintegration caused by high temperature and the blackening of the glass of the lamp is said to be materially lessened, while the stability of the carbon is proportionately increased. As a result, it is claimed, a lamp is produced which will maintain its efficiency much longer than a lamp having its carbon in a vacuum. These results, according to Mr. Waring, are best obtained by enveloping the carbon with a gas consisting of the vapor of bromine, or of the vapor of iodine, or of a mixture of both. The *Western Electrician* says: The appearance of this lamp at the present time is significant as indicating the direction which investigators are following in their efforts to produce a perfect incandescent lamp.