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Major William Grupp.

The slowest man in seven states
Was Major William Grupp,
He often let his watch run down
A-winding of it up.

So cross-eyed was the major
That he scared the dogs away,
And he held his watch behind him.
When he told the time of day.

So stingy was the major
As I've heard the neighbors swear,
It was a common thing for him
To shingle his own hair.

So frugal was the major,
And so saving of a cent,
That the landlord chloroformed him
Every time he got his rent.

The major was so grasping
That unto his bed he took
And died of pea-green envy
When he saw a grappling hook.

In the interest of science
We cut him open—but
Instead of finding any heart
We found a hickory nut.

LIKE A THUNDERBOLT.

The Way Uncle Sam's New Torpedo Boat Will Strike.

People who happened to be crossing the Brooklyn bridge a few days ago, at about the noon hour, wondered exceedingly at a strange craft which was steaming down the East River. In the brief glance that people on the bridge caught of the vessel, there were two things which excited their surprise—one, the very peculiar dull slate or novel color of the ship, and the other, the swiftness of the craft's motion. It was a steamer of some kind—long, narrow, and cigar-shaped, lying very low in the water, and with a queer kind of covered deck. But for the short thick funnels it looked as if it might be the Nautilus of Jules Verne's story skimming along upon the surface of the water, instead of 20,000 leagues under the sea. At the stern floated a flag which those with sharp eyes saw to be the national colors. In scarcely a minute, it seemed the little boat had passed under the bridge and was away down off the Battery. The was evidently bound out to sea. People who had not read the New York *Sun* that morning did not know what the strange ship was. People who had knew that the vessel was the Cushing sea-going torpedo boat, No. 1, of the United States navy.

The Cushing, when folks on the bridge saw her, was on her way to Washington, full of youthful pride and enthusiasm, to let the congressmen and naval sharps there look at her and praise her. She had only been in this neighborhood over night, having come down like the wind from Newport the day before. On her way down in a choppy sea, against a head wind, with a crew of green men, and burning only hard coal, she had beaten the famous run of the Now Then of July 12, 1887, making the run in six hours fifty-seven minute. She was not really pushed on the trip either. Generally speaking, the Cushing has proved herself capable of speeding at the rate of twenty-two and a half knots an hour all day long. In one hour she has made 24 32-100 knots or twenty-eight miles. She is 138 feet long, aud can pump her weight in water in ton minutes. She was named after Lieutenant Cushing of the navy, who sank the rebel cruiser Albemarle. The Cushing has not got her armament on board. When equipped she will carry a torpedo tube on each bow, and a torpedo gun amidships, so that she will be able to launch three torpedoes at the same time. She will have three rapid-firing six-pound Hotchkiss breech-loading rifles, and two or more Gatling guns mounted elsewhere. She is one of the strongest boats ever built. It is estimated that on her trial trip she developed more than 1700 horse power. She can be propelled astern as well as forward, and has made over 17 miles an hour in going this way. Her queer color is technically known as a French gray; it renders her almost invisible at a distance, even by day. On her trip to Washington referred to, the Cushing made the run in 28½ hours, a record that beats all previous performances for that trip. She used only one boiler, with an average pressure of eighty pounds of steam, and, notwithstanding the weather was thick and heavy, made an average rate of fifteen knots an hour.

The Cushing has been in existence only about three months. She is the first sea-going torpedo boat constructed for the United States navy. She was launched from the yard of the Herreshoff maufacturing company at Bristol, R. I., on January 23d. Her contract provided that her official speed trial should consist of a continuous run of three hours, during which time the boat had to attain a mean speed of twenty-two knots an hour. As a matter of course, as has been stated, it has been proved that the boat is capable of maintaining a speed of twenty-two and and one-half knots an hour all day long. Premiums of $2,000 and upward, were offered for each quarter of a knot in excess of twenty-four knots an hour, whereas a penalty of $4,000 would have been exacted had the speed fallen below twenty-two knots. The Cushing had her trial trip in March and was accepted by the government officials in April. At present the Cushing is in command of Lieutenant Cameron McRae Winslow. She has, in all, a complement of sixteen men and four officers.

The Cushing is in more respects than one, therefore, the most noteworthy boat in the American navy, and the details of her construction, especially her wonderful engines, are extremely interesting. As shown by the official records, the principal dimensions of the Cushing are as follows:

	Feet.
Length between perpendiculars	137 50
Breadth at L. W. plane(molded)	14 10
Breadth, extreme	15 05
Depth of hold	9 21
Draught (ordinary)	4 50
Displacement in tons (2,240 pounds)	24 34
Tons per inch immersion at L W P	3 02
	Square feet.
Area of midship section	42 36
Area of L W P	1,297 89
Area wetted surface at drft. of 4.5ft	1,701 00
At deep load draught 5.2ft	1,895 00
Area longitudinal immersed section	424 20

All materials entering into the construction of the hull and machinery were subjected to the usual standard government tests. The frames, shell plating and all bulkheads are composed of galvanized steel. The thickness of the deck and bottom plating varies from five sixty-fourths to one-fourth inch, and was bent into shape cold. Double frames are placed at all water-tight bulkheads. The flat keel plates are riveted to each frame and securely bolted to the stem and stern posts. Both stem and stern posts are of forged steel. The deck beams consist of steel angle bars, and are placed at every frame, to which they are conneted by bracket plates.

Stringer angles of the greatest possible length extending from stem to stern posts are securely riveted to stringer plates and sheer strakes; these, in connection with the elliptical steel deck, give great rigidity to the structural strength of the boat, and increase her capacity to resist the shock of waves when driven into a head sea.

All that art and science and iron can do to make the Cushing a strong ship has been done. There is no doubt that the assertion of her builder and commander is true, that she is one of the strongest ships ever built.

Ten water-tight bulkheads, built of steel plates, divide the Cushing into eleven water-tight compartments. It is apparent that on a vessel like the Cushing, the question of room is a very important one. Every inch of space must be utilized. It is obvious, too, that of the little space there is, by far the greater portion must be devoted to the big engines and boilers which give the ship her enormous speed. The engine of the Cushing have developed 1,700 horse power. How can you get 1,700 horse power on board of a ship 137 feet long? That is about the first question asked by those who have heard of the Cushing's performances. The following table of the cubic feet of air space in the various compartments of the Cushing show how the question has been solved:

Compartment	Cubic feet.
No. 1, fore peak	30
No. 2, general storeroom	225
No. 3, torpedo room	1,092
No. 4, galley and dynamos	566
No. 5, forward boiler room	1,894
No. 6, engine room	2,183
No. 6, after boiler room	1,987
No. 8, machinists' room	839
No. 9, cabin	100
No. 10, pantry and storeroom	285
No. 11, tiller-room	60

Ejecting pumps have a total capacity of 100 tons in seven minutes (or the weight) of the ship in less than ten minutes, are connected with the water-tight compartments. The action of these pumps is regulated by the auxiliary engines, and it is calculated that they can free the ship of water under all circumstances.

Externally the Cushing has a whale back extending from the stern of the forward conning tower, a distance of about thirty feet. The rest of the deck is illiptical. The conning towers are fitted with steam steering and hand wheels. There are electric and speaking tubes all over the ship. Twenty ventilators provide plenty of air. In foul weather ventilation is obtained through the boiler spaces and jacket of smokestack. All boats and anchors are hoisted by steam. The torpedo room is in compartment No. 3, under the whale back, thereby leaving free access to transoms and lockers, which extend the entire length of the forecastle. Here also are loaded the torpedoes and the launching tubes charged from the racks.

The torpedo can be launched by means of electric connections from one or both tubes at the will of the commander in the conning tower. The launching may be made at full speed with the helm hard over, and not effect in any way the line of direction with the object fired at, which the torpedo had in the interval between leaving the tube and striking the water. This is an absolute achievement in torpedo warfare which has never been accomplished by any other torpedo boat in existence, and therefore increases the value of the factor of safety of torpedo boats in an attack inasmuch as they will be able to discharge torpedoes when in full speed. The cabin, accommodating all the officers, is right abaft the conning tower. The machinists' quarters are between the cabin and after boiler bulkheads.

But, of course, the most interesting and important thing about the Cushing is her wonderful engines. No vessel of her size in the world has such engines. The Cushing has two separate quadruple-expansion engines, vertical, direct acting. All the pistons have a stroke of fifteen inches and work on five cranks so placed with regard to each other that the ship vibrates as little as possible with their motion. The engines work with almost no noise whatever, and no one man can reverse them all. There is one piston rod to each cylinder, which extends through the lower head only. The cylinders and their pressures are as follows: High pressure, 260 pounds; first intermediate, 130 pounds; second intermediate, 65 pounds, and two low pressures at 65 pounds. Each engine was made to develop 800 horse power, but 1,700 horse power has been developed. The coal consumption is about 3,800 pounds per hour, when pushed at the highest rate, or twenty-four knots an hour. The bunker capacity is 37 tons, which means that the Cushing can steam 3,000 miles at ten knots an hour. The propellers of the ship are of galvanized, hard bronze, 50 inches in diameter of four blades each. They turn outward in forward motion.

The rudder is suspended and has an area of fourteen square feet. It is made of hard bronze and connects directly with the stearing gear. The auxilary engines of the Cushing are of what is known as single type. They exhaust into the condenser. Independent engines work the main feed and air pumps for each engine. There is a blowing engine for each fire room, and one engine works a centrifugal circulating pump. There is a donkey pump in each fire room.

The engines get steam from two Thorneycroft boilers built by Herreshoff. These have a working pressure of 200 pounds to the square inch. The ratio of heating surface to that of grate is sixty-six to one. Steam can be supplied separately or in connection to one or both engines. In the boilers the water is heated by passing in tubes between two horizontal water chambers, situated at either side of the fire grate space, to a cylindrical steam collector located above the fire grate space. The tubes are arranged in groups, and all the tubes of one group stand in the same vertical plane. The arrangement of the tubes is such that between the walls of the groups there are spaces which act as flues for the ascent of smoke and gases from the grate. Fire brick plates are placed at the ends and sides of the fire grates. Chambers arranged at the ends of the boilers have valves for the admission of air for cooling parts of the boiler and fireroom. One chamber communicates with the ash-pan and the other with the atmosphere. Another, communicating with the ash-pan is arranged to open and receive the escape of steam in case of the bursting of a steam tube. This arrangement secures the firemen from being scalded or driven from the fireroom when working under forced draught.

It is believed that the Cushing to-day is the finest torpedo boat extant. It remains to be seen, of course, with what directive force and skill she can send her torpenoes.

M'NAIR THE BOY TRAMP.

He Goes Over the Country Without Paying his Fare.

Frank C. McNair is a bright American boy who knows how to take care of himself. When he is at home his post-office address is Nunda, N. Y., but he is only there on rare occasions. McNair though of tender years, has had a lively experience and has seen more of this country than most young men of his age. What makes the story of his travels particulary interesting is that he has journeyed thousands of miles on a cash capital of only a very few dollars, and deserves to be handed down to posterity in a yellow-covered novel as "The Boy Tramp."

Frank McNair is the son of a well-to-farmer. He received a good high-school education. He was ambitious and his ambition lay in the direction of travel. His father did not agree with him and would not contribute the necessary cash to start Frank on a sight-seeing tour. The boy solved the problen. He started out in the spring of 1887 with a tray of knives and about $10. He worked his way as far west as Omaha and in the fall retured home. It was not until July, 1888 that his travels really began.

He then, with another young man, began a trip which carried him as far west as San Francisco and included this country as far north as Tacoma, Wash.; south as New Mexico and east as Portland, Me. Frank has a stock of knives worth $4 and a few dollars for expenses. He stole a ride on a freight train to Buffalo and on other trains to Ashtabula, O. With his companion he beat his way to Cleveland and thence to Fort Wayne. During the summer the two boys sold knives in Michigan. in October McNair lost track of his friend and alone started from Battle Creek, Mich., with the resolve to reach California or know the reason why, and in his own language as he told a reporter, the facts are given:

When I left Battle Creek I had a stock of knives worth $4 and about $3 in cash. I hid myself in a flat car of a freight train and so stole a ride to Chicago. I stayed there two days and then beat my way on a passenger train to Jacksonville, Ill. I sold some knives there and went on to Hannibal, Mo. I had fo take two freight trains between that point and Kansas City. I got put off the first one at a little town in Missouri called Brunswick. I boarded the next train that came along, however, and reached Kansas city without trouble. I tried to get work there and for my pains came near being struck for $1 by an employment agency. I left Kansas City one October morning on a long baggage train. I got in the first car, but ten miles out of the city a breakman came along and said that unless I gave him 50 cents he would put me off. I reluctantly did so. The train had gone about one hundred and fifty miles when he came around again and struck me for 50 cents more. I concluded to give up. I only had $7, but he promised to let me ride to the end of the trip for the second consideration.

"I went as far as St. John, Kan. I got another freight to Kingsley, Kan. I staid there a day and caught a freight on the Santa Fe road. I reached Las Vegas, N. M., without trouble. When I was hungry and the train stopped at a station I would get off and get some lunch and get back without attracting any attenion. The next town I struck was Albuquerque. I got a freight train there but only held it for about twenty-four miles when I was put off at a little Indian village called the Atlantic and Pacific Junction. Three other tramps were put off at the same time.

"When the next freight came along I got on the pilot of the engine and rode to the next town. I was discovered, but although they put me off I managed to catch the last car and get inside the boiler of a stationary engine that was being shipped to some point. I had good luck for a while. The next interesting incident was a thirty-six-hour ride in a passenger train at Coolidge, N. M. A passenger hid me in a berth, and I was not discovered for some hours. Then the porter in lowering the berths, caught me. I got off the train at The Needles, in California, but got on again and managed to conceal myself under a seat. By such tricks as these I managed to reach Los Angeles. Then I tramped to Pasadena, where I got employment in the Raymond Hotel and saved up $37, which I sent home. I went to San Diego and there took a boat to San Francisco. I sold oranges in Frisco. One day I heard from a friend that he was going to Tacoma, and I decided to meet him there, and by riding freight trains and occasionally tramping I reached there.

"To make my experience brief, I got to Pasco, Wash., by riding on top of a passenger car. From there I made my longest continuous trip. It was on the Northern Pacific road. There were twenty wanderers like myself at Pasco waiting a chance to beat their way east. I was the only one who succeeded, and did it by getting on like a regular passenger. I took a seat in the smoker until we were ten miles out, and then I went out on the platform and climbed to the top of the car. By riding this way and in the bunks and under seats I managed to reach Minneapolis. The passengers helped me and gave me food and drink. I reached home in June, 1889.

"Since then I have tramped and beaten my way through Pennsylvania, Delaware, New York and New Jersey and all the New England states.

"I would like to start round the world without a penny and beat my way. I could do it and not have to beg, borrow or steal."