

SCIENTIFIC AMERICAN

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A WEEKLY JOURNAL OF PRACTICAL INFORMATION ART SCIENCE MECHANICS, CHEMISTRY, AND MANUFACTURES.

Vol. LXXVI.—No. 23.
ESTABLISHED 1845.

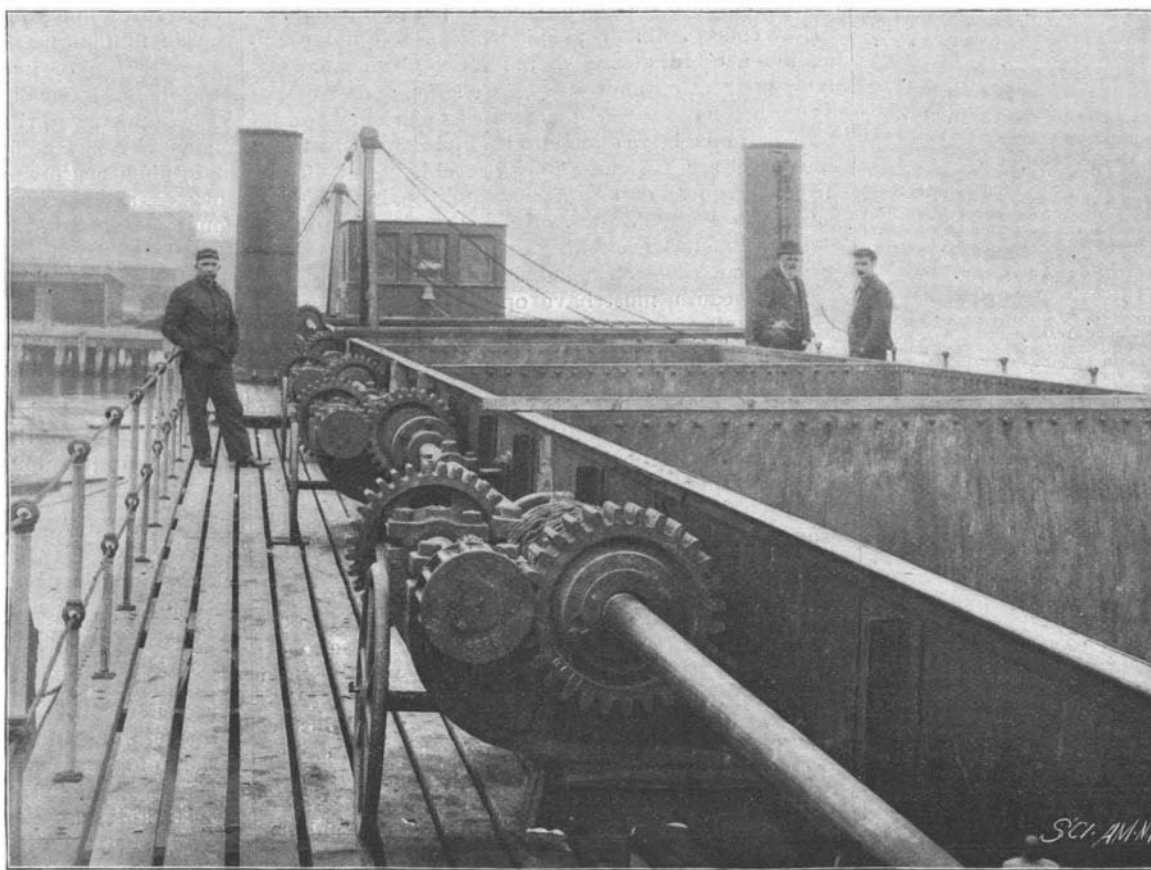
NEW YORK, JUNE 5, 1897.

[\$3.00 A YEAR.
WEEKLY.]

STEAM DUMPING SCOW FOR THE STREET CLEANING DEPARTMENT OF NEW YORK.

The Street Cleaning Department, of New York City, as at present administered, is a notable instance of what good results may be gained by a thorough reform in a much abused branch of city government. It is but a few years ago that the condition of the streets of New York was a reproach to the city and a daily menace to the health of its inhabitants; but to-day, thanks very largely to the energetic reforms and administration of Colonel George E. Waring, the chief commissioner, the streets of New York compare favorably with those of the best managed capital cities of the world.

The operations connected with the daily sweeping of the hundreds of miles of streets in this great city and the daily collection and carting away of the ashes and garbage from

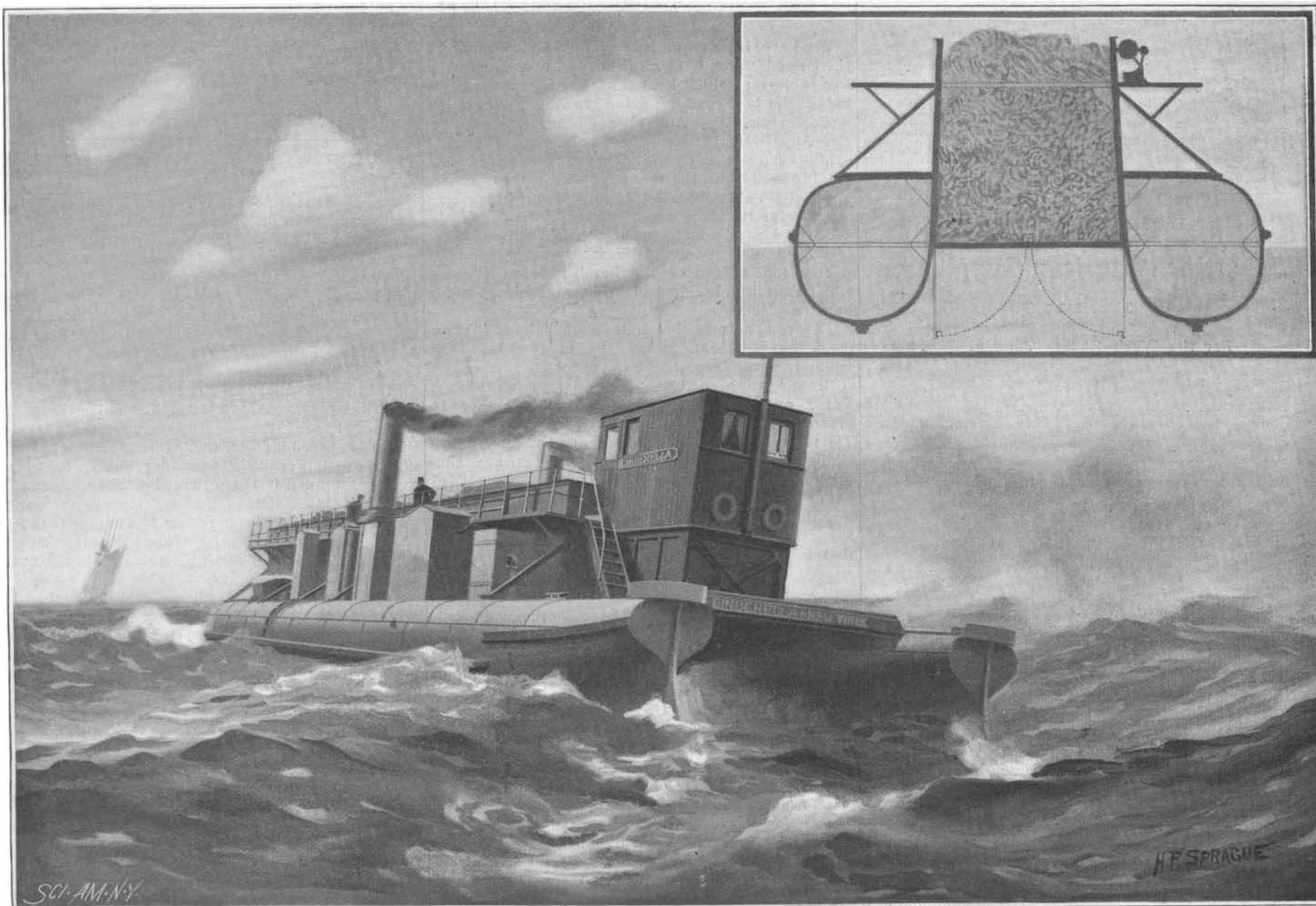


PLATFORM DECK SHOWING THE POCKETS AND THE DUMPING GEAR.

the homes of two millions of people are on a vast scale and involve the employment of a little army of laborers. There are altogether some 2,500 employes in the department, and of this total about 1,600 are sweepers, 800 are drivers and 100 are supervisors and clerks. The "Uniformed Force" is controlled by a superintendent, under whom are an assistant superintendent, a superintendent of stables, eleven district superintendents, and in each district there are five or six foremen. There are nine stables distributed throughout the city, and there are fifteen "dumps" located at convenient points on the Hudson and the East Rivers.

The sweepers are paid \$50 a month the first year, \$55 the second year, and \$60 the third year, and the third year men are eligible for promotion to the position of district foremen.

Under the present system (Continued on page 359.)



NEW STEAM-PROPELLED DUMPING SCOW FOR THE NEW YORK STREET CLEANING DEPARTMENT.

Capacity, 600 cubic yards of refuse; speed, 10 knots an hour.

STEAM DUMPING SCOW FOR THE STREET CLEANING DEPARTMENT OF NEW YORK.

(Continued from first page).

tem, the refuse from the streets and from the houses and hotels is no longer collected indiscriminately; but the householders are required to place the ashes and the garbage in separate bins. For the past few months, moreover, a third class of rubbish has been established. This is known as "light refuse," and comprises rags, paper, carpet, sacking, etc.

The refuse is carted separately, according to its nature—ashes, garbage or light refuse—to the "dumps" on the river. Here the ashes are unloaded into scows and taken down the harbor and well out to sea, where they are dumped to the eastward and southward of Sandy Hook, or at a point about thirty miles distant from the New York docks. In former years it was customary to dump the whole of the city refuse, ashes, garbage and general rubbish outside Sandy Hook, and one result of this practice was that the lighter material was regularly washed up upon the shores of Long Island and New Jersey, which were freely strewn with a fringe of decaying and exceedingly unsanitary and unsightly matter. At present it is only the ashes that are carried to sea, and as the government authorities are of the opinion that the unloading of so many thousands of tons of material assists in shoaling up the entrance to the harbor, the practice is shortly to be discontinued.

The plan of separating the ashes and durable refuse from the garbage enables the city to utilize the former material for reclaiming waste land and for general filling purposes; and plans are now being carried out for using it in reclaiming portions of Riker's Island, which lies off Port Morris, on Long Island Sound. When the receiving basins on the island are completed, the ashes will be unloaded into large steam dumping boats, of the type which is shown in the front page engravings, and these will carry it to the island and dump it over the suction pipes of a large vacuum pumping plant. The garbage is taken to Barren Island and there disposed of, and after the salable material has been taken out of the light refuse, the residue is burnt up in a destructor furnace.

The first of the three self-propelling dumping boats which were ordered is now at work carrying ashes to the outside dumping ground. It has been built from the designs of Lieut.-Commander Delahanty by the Nixon Shipbuilding Company, of Elizabethport, N. J.

The Cinderella, as the boat is named, is constructed of open hearth steel. The body is built in two separate sections somewhat on the catamaran principle. Each hull is 136 feet long and is of a general oval cross section, measuring 8 feet in width by 10 feet in depth. Between the hulls is a long, deep, rectangular box, the walls of which extend 8 feet above the deck, the depth from the top of the walls to the hinged floor being 13 feet. Each hull, or pontoon, is divided into eight watertight compartments by means of plate bulkheads, and the square dumping box is divided by plate partitions into six separate pockets. The bulkheads and the plate partitions are in the same plane, so that the ship is braced from side to side by six continuous walls of plating, and is proportionately stiff and unsinkable. The frames consist of $2\frac{1}{2}$ inch by $2\frac{1}{2}$ inch by $\frac{1}{8}$ inch angles, spaced 3 feet apart, closer spacing being used in the neighborhood of the pockets, and the hulls are further stiffened by 3 inch by 3 inch by 7 pound angles which extend from side to side at every 9 feet and are tied to the frames with gussets of 10 pound plate 18 inches deep. Each compartment of the pontoons is devoted to a separate purpose. In one is the tank, in another the galley, and others are devoted in their order to boilers, coal, and engines, and cabins for the crew. Astern of the dumping pockets is a commodious pilot house and cabin, which are located at a sufficient height to give a good outlook for navigation purposes. The narrow boxlike structures which will be noticed built upon the deck of the pontoon are companionways which lead from the upper platform deck to the various compartments before mentioned.

The side walls of the central dumping space are built of 10 pound plating, stiffened at intervals with a pair of 3 inch by 3 inch by 7 pound angles. The partition walls are built of 12 pound plating stiffened with 14 pound angles. There are six pockets for the refuse, and the floor of each pocket is formed of a pair of vertically swinging doors which are hinged to the walls of the pontoons and are drawn up and held in a horizontal position by means of chains which are attached to the outer edges of the doors and pass up over drums which are located on the platform deck. The work of releasing and closing the doors is performed by a ten horse power engine in the engine room. This drives, by means of a vertical shaft and bevel gearing, a long horizontal shaft which is placed upon the platform deck against the wall of the pockets. Opposite each pocket there is a drum and a set of multiplying gears which are thrown into engagement by means of coned bearings and friction clutches. When the doors have been drawn up they are held in place by means of a compressor block which is operated by a large

handwheel. The arrangement of the platform deck and the lifting gear is clearly shown in the engraving on the front page.

The pockets can carry about 600 cubic yards of ashes and street sweepings, the weight of which will average about 300 tons.

The ship is driven by two separate engines of 125 horse power, one in each hull, each of which operates its own propeller. Steam is supplied by two Roberts boilers. There are two rudders, one for each hull, and they are steered by a single wheel in the pilot house. The speed with a full load in the pockets is about ten knots an hour.

The South American Cowboy.

BY GEORGE ETHELBERG WALSH.

The gaucho, or South American cowboy, is in many respects a duplicate of the rapidly disappearing cowboy of our Western plains, differing only from him in habits and customs that climate and surroundings are responsible for, and possessing many good qualities that are scarcely noticeable to casual strangers who happen to meet him for a few hours at the stations and small towns. At such times he is usually drunk, unamiable, slouchy, and unattractive. He is out of his element, and a judgment based upon such observations is unjust. In his home on the plains his picturesque appearance and his really fine accomplishments are set off to better advantages.

The cowboy, the shepherd, and the plainsman are all classed as gauchos, but the first is more typical of what the word means. His life is spent on horseback, riding over the endless stretches of plains, corralling his cattle and branding them, and occasionally hunting the wild panthers, ostriches, or guanacos. His saddle is the most uncomfortable seat in the world, but he strides it with the ease and grace of an Indian. The wild mustangs of the gauchos are fully as ungovernable as any on our Western plains, and they shy right and left, rear on their hind legs, and even roll on the ground to shake their riders. But once in his saddle, the cowboy is not to be dislodged by any trick of man or beast. He will remain in the saddle from the break of day to the going down of the sun, stopping only long enough to eat and drink.

The diet of the gaucho is not noted for its variety, but of its kind it is good. The morning meal is characteristic of the Spanish-American people—a cup of maté, the tea herb of Paraguay, and a fair substitute for coffee, a piece of cold meat, and a pipe of tobacco. With this slim repast over, the cowboy is ready for a ride of several hours in the keen morning air. The midday meal is not much more elegant, either in variety or quantity; but when night comes he is ravenously hungry, and a course dinner will be prepared. This consists of some good fresh meat—the flesh of a panther, rabbit, partridge, or steer—a cup of the inevitable maté, the wild berries of the plains, and possibly an ostrich egg. In the course of the day the gaucho is very apt to startle up a mother ostrich from its nest, and after killing the bird he will return and look for the nest.

One egg holds enough meat to make a big omelet, and when properly cooked it has a peculiar and delicious flavor. One end of the shell is broken, and then the egg is placed on the hot coals to cook. In a few minutes the egg is ready for eating, and the cowboy digs out the meat with his knife and gulps it down greedily. The mother ostrich is meanwhile skinned, and the feathers are carefully preserved until some time when the gaucho goes to some settlement. There he receives fifty cents a pound for them, which enables him to buy a few trinkets for his squaw wife and a good stock of rum.

The Western cowboy is said to be helpless without his revolver, but this does not apply to the South American gaucho. He rarely if ever has such an instrument, and not even a rifle is carried with him. His indispensable weapons are the lasso, of horse hair rope, the bolas and the knife. The latter is his weapon of defense when fighting with human enemies, and the first two are his weapons for offense when chasing the wild horses, steers, guanacos, ostriches, panthers, and even birds. With his knife he can perform wonders, using it for all emergencies at close quarters, from slitting the throat of an animal to the carving up of another human being. A man who should use a revolver in a fight with a South American cowboy would be despised and would very probably be strung up for his cowardly actions. The revolver has no place in their wild, nomadic life.

The bolas is really the weapon that is unique and peculiar to these South American cowboys, and through long years of constant practice, it is really a deadly instrument. It consists of two or three small iron balls, one and a half inches in diameter, attached to pieces of stout cord three feet long. The other ends of these cords are gathered together in a big knot, which gives the cowboy a firm purchase. The accomplishments of the gaucho with this instrument are little short of the marvelous. He swings it over his head once or twice to give it force, and then, with a twist of his wrist, hurls it with unerring aim at the object. Within a range of thirty to sixty yards the man can

bring down any small game, and even at eighty to one hundred yards he has been known to hit panthers and rabbits. The two or three balls swing wide apart in their flight, and thus there is a range of six feet in which to hit the target. At short range the cowboy hits the game with the iron balls, stunning or killing them with the blow, and in this way he will bring down partridges and rabbits by dashing in their midst and striking just as they jump to run.

On the plains the cowboys practice daily with their bolas, using them to bring down cattle, a stray ostrich, a rabbit, or a guanaco. When the cattle are rounded up to be branded the lasso is used, for the bolas is more apt to break bones than anything else, and consequently they are useless for this work. But after the cattle have been branded an exhibition of throwing the bolas may be given to create a little excitement. The lasso is thrown with the same skill as the bolas, and it never fails to settle over the head of the steer selected.

Their work of branding cattle is naturally cruel and blunting to fine sensibilities. It is necessary by law for every herder to brand his cattle if he wishes to claim them, and the cowboys are not particular as to the niceties of the civilized code of honor about torturing animals. The cattle are rounded up on the plains, and those selected for the branding are thrown violently upon the soft earth, and then either a hot iron or a sharp knife inflicts a more or less serious skin wound in the shape of a cross, circle, or whatever geometric figure may strike the fancy of the owner.

The South American cowboy is never made of the stuff that converts a man into a cattle king worth his millions, and the rare good fortunes that have been made on our Western plains by enterprising cowboys are never repeated in the southern hemisphere. The ambition of the gaucho never rises to such flights of fancy. He is content to live his life to the end on the boundless plains, riding in the saddle for a living, and associating with the same people and scenes until death intervenes. He has nothing of the Yankee ingenuity and mind for scheming, and he would not know what to do with his money if he gathered a few thousands of dollars together. Probably a good part of it would be put into rum and the balance into more stock.

Stretched at regular intervals on the pampas plains are mud walled huts called "homes." In many respects they resemble the adobe huts of the Southwest of our own country. They are made of blocks of sun dried mud, with the roof composed of dried grass, mud and a few willow rafters. Wood is scarce on the pampas, just as it is on the plains of the Southwest, and the cowboys make the most of every dead trunk that can be found along the courses of the rivers. These are always carefully preserved for roof rafters, and every gaucho attaches more value to these than to anything else that goes to form his house. The mud and grass are so plentiful that there is no market price attached to them. Labor alone is the commodity that has value in such house building.

The roofs of these mud homes frequently leak, and the owners attempt to patch them up with mud and grass until the thickness is nearly two feet. The mud house usually consists of one large room, but occasionally two or three adjoining bedrooms are added. The beds are made of pampas grass and the skins of the panther and cattle. Chairs and tables are scarce, but occasionally a few old stools and a dry goods box will be found in the huts. In this rude home the cowboy spends part of his time when he is not in his saddle, and his squaw wife and children live there most of the time watching and waiting for their lord and master to come home.

A more attractive place than this home are the gaucho saloons, which are scattered pretty plentifully across the pampas. This place is built of mud, but it is usually larger and more attractive than the ordinary home of the gaucho. Coarse pictures conceal the barrenness of the walls, and, to the cowboy's way of thinking, vastly improve appearances. There are cheap lithographs of actresses, fighting scenes, and obscene pictures gathered from the four corners of the earth. Rum and beer are dispensed at these saloons in quantities, and the gauchos assemble there to have a regular spree, nearly always ending up with a free fight. The deaths that occur at the gaucho saloons are many, but they are usually hushed up and nobody is the wiser. The scenes enacted there seem to be the necessary and fitting climax to the wild, rough life the gauchos lead upon the pampas, and, according to their code of honor, it is no disgrace to end an existence in such a tragic way.

SHIPS propelled by gas engines are apparently gaining favor in France. A new boat of this type has recently been put in service for the Havre-Rouen-Paris line, the speed attained being 7 knots. It is 100 ft. long, with 7 ft. draught, divided into four watertight compartments. The gas is supplied from on shore, and is stored on board in a steel holder, an accumulator composed of steel pipes, under a pressure of 95 atmospheres, about 850 lb. The engine employed is a two cylinder one, of 40 horse power.