CHAPTER XIII.

Burns bent down and tried to raise Josephine to her feet, that he might lead her to a chair; but she resisted.

"Nc," she said in a low passionate voice; "you have not cast me down. It is he who has done this."

"Yes," said Greville sternly. "It is I who have done this, by my charge; and it is I who should raise you up, and humble myself to you, child, but not yet-not yet."

He turned and walked slowly to the door, to stand there with his back to them, waiting; and Burns followed almost directly, to

"It is impossible, Captain Greville," he said in a quick angry whisper, as they approached Manton's room; but his host made no reply, merely going on before him with de house.' bowed head and a look of agony in his countenance which seemed to have aged him by | hiding.' ten years. They entered the room very gently; but Renee heard them, and started for help and relief.

Greville felt his head and hands, and then | entered. bent lower over him. "Still in so much

pain?" he whispered, Manton made no answer but a smile, her." which told all; and the captain wiped the

clammy dew from his temples. in a hoarse whisper.

"I am doing something," said the captain | drug food or the water, out of revenge." "but we must wait. When did you drink He hurried Burns to where the men and

that water?"

night, and yet I seem to fancy I heard the heat, Greville turned back. glass strike against the vessel."

"I heard you."

"No," said Manton, after a few minutes' pause, during which he had struggled hard | She gone." to bear a terrible paroxysm of pain-"no; I did not touch it in the night. I am sure it was morning."

to Greville. "I distinctly heard him touch a boat; and he come ashore and talk, talk; the bottle and glass."

ously, and then walked to the window, and | right away. stood there thinking whether there was anything he could do to help his guest.

As he left the bedside, Renee let her head sink again in despair, for she could gather gone right away." no hope from the face before her, and once more a terrible silence fell upon the group; while Burns, after looking intently at the pain-drawn countenance of his friend, the man who was trembling in every limb, crossed on tiptoe to speak to Greville, who hurried away. was leaning out of the window, and seemed to be trying to reach something below him | captain slowly. amongst the flowers which covered the top of the veranda and climbed up round the punished for the crime?" said Burns. jalousies.

ed to Burns.

"That? Yes. I have seen our nurse, see her more." 'Miramis, wearing it constantly. Why?"

What should you say it meant?" "Some one must have climbed out."

"Or climbed up," said Greville excitedly. | close. -"Come down with me, We can do nothing here."

Puzzled and wondering, Burns followed him into the room where Josephine crouched upon the matting in the same attitude as | more and went out into the garden. that in which they had left her.

sharply that the girl started up and looked do something." at him wildly, "Whose is this?"

"It belongs to 'Miramis." "When did you see it last?"

"Ah!" cried Greville. "She came to your window? When

"It was when I went up to bea "Why ?-Tell me the truth." "I am telling you the truth," said the the woods.

girl coldly. "She often comes to my window of a night. It is nonsense; but she me tell her my troubles, and promises me punishment. I know them by heart. Come held him fast. that they shall all depart."

"Hah!" said Greville sharpely; "and from them, or" -you told her of your trouble last night?"

ville sternly. "I was thinking," said Josephine slowly.

that my troubly should not last."

"You foolish girl!" cried the captain and pawed and fought to get at its master.

been caused." "I-I-don't understand."

"Then I will not explain. -Burns, come woman, sir, with that savage beast?"

with me." ly, and then followed him out into the gar- alarmed : a word from me is enough to reden where the rough palm stem which sup- strain that dog." ported the veranda beneath Manton's win- Burns was silent; and at a word, the dow showed traces such as would have been | dog bounded before them on their way back piece of trunk was rugged with the great women were grouped as they approached had been left so as to form a support to the | dog. creeper that had been planted to run up, so Greville laughed bitterly. "You see," that an ascent was easy enough, but not he said. "One would think I hunted my without disturbing the clustering stems people with this hound. -Here, Nep! In and leafage of a beautiful Bougainvillea with you boy !" which was in several places broken and torn | He strode right into the cabin, and after

"There is no doubt here," said Burns a gown lying on the bed.

this post."

to examine the creeper; "and look here; other articles of attire which lay about as struggle against the paroxysms. But as some of this has been clumsily thrust back. if their owner had just made a change; and Here is a piece tucked in that has been the dog tore at them seized them in his broken right off."

There was a hand, set look in Greville's over, growling and snuffling about. tace as he turned "com the veranda.

"What are you going to do?" said in his companion's eyes.

"Do, boy? What would you do to the "you will soon see." reptile you have fostered-to the half-savage

Such a creature is not fit to live." He hurried Burns on to the deusely wooded part where the cottages of the blacks | through the low doorway at once. were clustered. As they approached one of the best of the cottages, superior to the rest, and with the garden better kept, Greville uttered an ejaculation. "I might tation, where a group of labourers stood to have known," he said. "I was mad not watch them approach; and as the dog paid to have had it destroyed."

"What-what it it !" cried Burns.

he pointed to a good-sized tree rising behind | tance. the cottage-" the machineel."

small apple-like fruit. "A deadly Euphorbia, teeming with vir- | see her taken. - Look at Nep. ulent poison.'

He was about to enter the garden, when turn before he passed out, and meet Jose- a black woman came toward them from one

clooly. "Don't know, Massah. Think she go to track, one which was rarely used.

"No: we have come from there. She is at last.

He went on, followed by Burns.

"I have been a father to these people," up to look piteously in her father's eyes; said Greville angrily, "and yet there is no while Manton opened his, and gazed from one I can trust. That women lies to me at one to the other questioningly, as if asking once. They say anything to escape blame.

" Not here," he said fiercely. "But she

"From love ?"

"From hate. There is not a black on the "Can't-can't you do something?" came island who will not help her; for fear that she should work some spell-in other words,

or was it morning?" said the sufferer faint- wer to his questions. No one had see "Mis- jaws. - "Seek her, then. "I don't think I touched it in the amis" that morning; and at last, faint wir-

Burns followed him, and at the gate they "Yes; in the night," said Burns quickly. | were met by one of the black labourers.

"Yes: what is it?" cried Greville. "Massah look for "Miramis, dey say.

"Gone ?-Gone where ?" The man pointed to the sea.

"'Rutus go fishin' dis mawnin', sah ; and "He is wrong," said Burns in a whisper | 'Miramis come down and shout to man wiv and den 'Miramis get in de boat, and de man Greville looked from one to the other curi- lif' in um big bundle and set de sail and go

"Is this true?" cried Greville, catching

the man by the throat.

"Ah! -and why?"

"'Cause a buckra massah very ill."

"That will do. Go !" said Greville; and

"Her confession of her guilt," said the

"If he dies—yes, If I save him—no. The The next moment he was standing up- chances are that I should never have her right examining a kind of chaplet or neck- found. The woman has the reputation of lace formed of the bright red seeds of the being a follower of Obeah; and, as I have told you, such as she are supposed to bring "Have you seen this before?" he whisper- | death to those who are their enemies, and the people fear them. No: we shall never | a hollow, out of which the smoke rose; but

Greville whispered to Burns to stay "The creeper is broken and torn down where he was while he went back to the about the window," said Greville hurriedly; room where Josephine was seated alone; smoke which rose from between its feet. "and the person who did it seems to have and ten minutes passed before he returned, dropped the necklace on the veranda top. to sign to the young man to follow him to the bedroom, where to all appearance, the minutes of Manton's life were drawing to a

CHAPTER XIV.

She took the necklace he held out, and and teeth set, thinking intently. Then, Greville watched her closely as she replied: with a look of rage, he turned suddenly upon his companion.

but it tricked me for the time."

"I do not understand you, sir." him with that tale to put me off the scent. a deep-mouthed bay. She has not left the island, but is hiding in

"But the man"—

"I tell you they will all lie, and invent

At that moment a low, deep-mouthed bay-Josephine was silent for a few moments. ingrose from beyond the house. "Ah! said "Why do you not speak, girl ?" said Gre- Greville, "he never lies! Come quickly, her toilsome climb.

Now I shall know the truth.' Burns followed him as he hurried to the and staggered back, choking violently. "I was in so much trouble that I hardly far side of the house, where Renee's great | "Good heavens!" he ejaculated. "I could bought him. know what I said. She told me, though, heavy-chested Cuban bloodhound was chain- not breathe. Burns !-- that woman ! ed, and which now rose up on its hind-legs

was slipped from his collar.

"I am not going to hunt a woman, sir, The young man gazed at him wondering- but a vile murderer. You need not be

made by one who had climbed up. The to the woman's cabin, about which several dry footstalks of the old palm-leaves, which but all fled in horror at the sight of the

a few moments' consideration, snatched up

the cotton dress; and the dog made a

"That will do now-steady!"

The dog tried to bound off, but settled which was answered by a mournful howl and creature you have fed and tended for years, down directly with its nose close to the the rattle of a chain. when it has torned and stung you to the ground, and led them in and out to one of heart? Hund it out and crush it. -Ah!" the cottages, where a woman within set up mountain, and was being carried to her hut. monopolies a clear profit of £1,300,000.

he added after a pause, "it is not the first. a wild cry; but the dog came out again dir-

ectly, and made for another, threading the narrow pathway quickly, and dashing "Hah!" cried Greville; "that's good."

The dog ran round the room, came out, and, nose down, made straight for the planno heed to them, but went on along a narrow path by a patch of cane-ground, they one "There it is," said Greville bitterly, as by one left their work and followed at a dis-

"Another proof," said Greville in a low Burns looked eagerly at the tree with its voice; "they tell me plainly that she has taken to the forest. They will follow us to

Burns was already watching the sagacious beast, which was straining hard at the thong as, with nose down, he followed a phine's eyes fixed upon his with a grateful of the cottages with a curious shrinking narrow winding track right in among the trees beyond the captain's clearings; and, "Where is Semiramis?" said Greville forgetting the heat in his excitement, Burns hurried on behind in the dark overgrown

"Where does this lead to?" said Burns

"To a kind of meeting-house in the forest I never interfere with them in this. It is of

no use. Tired?" "No, I think not," said Burns, who seemed to be endued with fresh strength. For the next hour neither spoke, but with the He thrust open the door of the cabin and | dog tugging silently at the throng, followed the path in and out among the trees, till, all at once a large roughly thatched hut blocked shall be found. They will try and hide further progress, the path going in under the low doorway, and Burns's heart leapt to his mouth as the dog uttered a growl and John Musgrove. Northwest Arm, Cape Bre- | the commendation of the press. It consists bounded upon something dimly seen in the ton, N.S., His sire was a horse called Lord of a simple and inexpensive device for autowindowless shelter at the farther end.

a screened opening at the back out into the and was afterwards turned out in a back | the fixture; a valve containing the gas is forest again; but the path had ceased. There pasture to live or die. Late in the fall, attached to the free end, and, when the gas were, though faintly visible, footsteps on when they went out to look for her, they is burning, the valve is open and the gas the moist earth, and the scent was strong found her lying dead, with a colt, perhaps freely escapes. If, however, the gas is enough for the dog to go on as rapidly as he four days old, sucking one of her ears. diagonally.

less ascent, but from time to time the scent never be worth a dollar. seemed so fresh, and the dog tugged so that

Greville grew excited. "Oh 'ss, massah, all de troof. 'Miramis must be near her now. I want to run her sheep, where he often gave the colt a part of many difficulties. The total length of down before she can reach the woods

again." Greville uttered a cry of satisfaction as he

rising up some little distance ahead. "There she is," he whispered. - "Quiet, Nep !- She has not heard us. Keep level with me now," he continued; "and as soon "Then you will have her followed and as we are close up, seize her. I'll hold the

It was a time of breathless interest as they drew nearer the softly rising vapour loose stones which promised to rattle bento their surprise, the dog turned off to their left, and suddenly threw up its head, whined angrily, and snapped at a tiny curl of mile heats.

"Sulphur!" cried Greville. "Pah!"

Burns had already stepped aside, for he had inhaled the choking fumes which they could now see were escaping from cracks in

efflorescence.

He stopped short, with his brow rugged frighten the weak fools." "That black scoundel, Brutus: she sent drew back, threw up its head, and uttered boy \$50, and after that the little colt was

to the plantation again. I'll have the truth This rift led into quite a little cavern, whose covering. At daylight he would run the interior was lit up by the sun; and there, little fellow seven miles to his home. not twenty feet from them, lay the figure of When I got Dot he was a sorry-looking promises, it is thought, to be useful in conthe black woman, apparently sleeping after pony to a casual observer, but he carried

ered her softly down. "Dead? gasped Burns.

down and rest, and been overcome. -- Let us | thirteen horses were loaded on the cars and | liant colors. get back, and send the people to fetch her sent home. The intention of their owners down. -- Look !"

were toiling down the mountain, the latter | my knowledge. beginning to feel an exhaustion against which

he could hardly fight. It was quite dark when they reached the plantation house ; and upon Greville hurrying to the sick chamber, he found that there sharply. "Some one has climbed up by "Here, boy, here!" he cried, shaking had been apparently but little change. Manton was gazing with a fixed stare in Renee's "Yes," replied Greville, as he bent down plunge, buried his head in it, snuffed up eyes, too much prostrated now to be able to Greville approached, he read hopeful signs in his patient's face; and a couple of hours powerful jaws, and shook and turned them later, he drew a long deep breath, and whispered words in Renee's ear which made her start to her feet, fling her arms about Greville took a leather thong from his her father's neck, and burst into an hysteri-Burns, who was startled by the fierce look pocket, fastened it to the dog's collar and cal fit of weeping, just as a low wailing led him to the door. "Now, hep is a chorus came through the open window from the direction of the cabins of the blacks

CHAPTER XV.

The next morning dawned with Manton plunged in a deep sleep, which lasted for nearly twenty-four hours, and from this he awoke weak once more as a child.

But the convalescence was one long dream of happiness, from which he seemed to be rudely awakened one day by the return of

the ship and the call back to duty. "Yes," said Greville, as the time for parting came. "Some day, if Renee does

not change her name.'

Two years after she was Commander Manton's wife; and the captain accompanied her and her young husband back to England, where he had elected to end his days. For the time had came when the dreamy plantation life had begun to pall, and he had found a successor in Burns, who withheld promise from Josephine that she

would be his wife. Ten years had passed away before the young people met again, and it was in answer to a question that Josephine said "I was a foolish girl, and knew no better then Renee. Yes, I loved him dearly. Then in a minute my love was turned to hate, and I told that wretched woman, as I told her all my troubles then. Yes, I hated him; but I would sooner have died than caused him pain, and if he had --- There, say no more, dear; we are sisters and the past is THE END.

A Small Canadian Trotter.

"Hah!" ejaculated Greville as the dog and good horse, showing a lot of the Mor- been blown out instead of being turned off seized what proved to be a gaily coloured gan. His dam was a gamey little French- in the usual way. The principle upon which handkerchief. "We are on the right track. Canadian mare, a great driver, and quite this mechanism is based is the expansion women were at work in his fields, and every | -Good dog!" he continued, patting the fast for that part of the country. This Mus- and contraction of a metallic loop made of "Some time toward morning, I think- where there was a shake of the head in an animal and taking the kerchief from his grove, who raised Dot, was a seafaring man, German silver and steel, which is adjusted

and left his stock in charge of his friends. The dog made a plunge forward through This mare was old when she was bred, loop is free, while the other is secured to

could, with the shade growing less deep, The brother of this Musgrove, a boy quickly to cool and contract, and the valve the trees more open, and it was evident now twelve or fourteen years old, took the little will shut off the gas. The device is said to that they were ascending a steep slope, but colt under his arm, carried him home and respond promptly to the change in temperafed him on cows milk until his brother re- ture. "She has made for the mountain," said turned from his voyage. Upon seeing the Few words were spoken in their breath- telling him the colt was so small it would cent establishment at Offenbach of a system

"Keep a lookout forward," he said. "We sion to put him in a pen with a flock of and the work being consummated in the face of his own crust of bread and sometimes pipes thus laid amounted to 7,760 yards, of drew Burns's attention to a curl of smoke the colt wandered off with the sheep, sum- meter, and 4,347 yards of four inches diabarn in the tall, wintered with them, and one-half feet below the footpath, the con-

ran with them the next summer. pair of pung runners and fitted uo a sled. pursued for similar work in Paris, and little fellow, whose speed at once attracted itial trial of the system, made by the engiwhich betrayed the woman's halting-place, his brother's attention and pleased him so neering authorities of the town and by the and, making every effort not to tread on the much that he got a genuine harness made. Boiler Inspection Association, it appeared One day towards spring the sailor went into | that there was a loss amounting to 0.11 of neath their feet, they gained the mouth of Sidney, got on a racket, commenced to blow an atmosphere in seven and one-half hours, avout the little colt's speed, and finally that is, 0.39 of a cubic metre per hour kilomade a match for \$100 a side against the metre, a loss equalling 13 per cent. on the

On the day of the race crowds went to vorable showing.

called Dot, and was the boss of the road. "Run to earth!" cried Greville excitedly. Dot was often subjected to harsh treat-No, she is my servant. Hold the dog. I'll go.' was at home. He was finally sold to a thinks she is a wise woman, and she makes childish stories to save one another from thrust his hand beneath Nep's collar, and fellow stand all night at the tavern door in the enormous weight of 27 tons. cold winter weather without a stitch of

> Greville pressed forward into the cavern, a half days, and trotted in 2.30 for me on the ice in less than three months after I

> The spring that he was eight years old I "Yes. There must have been a fresh es- the stand and broke up the day's sports. as expressed was never to take horses to Ten minutes later Greville and Burns that cut-throat track, and they never did to

showing a fast mile there sold him to the ed in this country. The plan consists in late Wesley P. Balch. He trotted in many | the placing of the propeller at the bow inraces the following summer, and his peculiar | stead of the stern of the ship, this change gait was never questioned. He never was from the usual construction being made by sent for a record, but a 2.26 clip was an | the inventor in view of what he regards as easy thing for him. He was right up to two legitimate considerations-first, that the shoulders of winners in 2.24. Mr. Balch | the revolution of the screw propeller in its sold Dot to Budd Doble, and a few weeks ordinary position at the stern of the vessel after he was burned to death in Philadephia, when Doble lost seventeen horses.

Dot'e weight was only 670 pounds in condition. He was toaled in 1861.-G. W. S. in American Breeder.

said to the tailor who refused him credit.

London pays its gas companies annually £4,400,000 for a commodity which costs to Semiramis had been borne down from the produce only £3,100,000, thus giving the angles to the surface, and arranged in a

NGTES ON SCIENCE AND INDUSTRY.

The oft-discussed problem of a substitute for dynamos in electric lighting by providing a cheap, inodorous, inoffensive electrio battery, capable of supplying sufficient light for domestic uses, is again claimed to be solved by M. Poudroux of Paris. By his new battery he claims the ability to emplor a great surface of zinc in a cell of the desired moderate capacity containing but a small quantity of liquid, and with the advantage of the ingredients of the solutions, as he states, being very cheap.

According to statements by those practically engaged in the industry, the manufacture of glass bottles by machinery appears to possess some decided advantages over the ordinary method, even with the appliances and processes thus far developed. quitted the service upon wresting a long | Gathering the glass metal in the usual manner, it is allowed to run from the rod into an iron cup, which holds the quantity required for making the bottle, when a hollow iron plunger at the bottom of the cup is pushed up through the mass and the cap reserved, leaving the glass in a plastic condition suspended from the hollow plunger, through which air is admitted. The cup, which is hinged, is now removed, and the movement of a level admits a small quantity of air; the bulb is then flattened at the bottom and dropped into the mould, which latter is at once closed and the air applied, this movement completing the bottle, which is taken in hot to the annealing oven.

A much-needed invention has lately been Dot, 2.33 1-4, was bred on the farm of brought to notice in London and received Nelson, by Bellfounder Morgan, a very fast | matically shutting off the gas when it has very close to the gas flame. One end of the blown out, the property of the loop is

German engineers are of the opinion that colt the sailor ordered the boy to kill it, quite a success has been achieved by the reof pipes for the transmission of power by The boy begged to have the life of the compressed air, the laying down of the pipes little ovphan spared and finally got permis- having been commenced about a year ago, got him a plate of porridge left over from which 1,702 consisted of pipe one foot in The breakfast table. In the spring the lit- diameter, 1,710 yards of eight inches diamered with them, followed them to the meter. The pipes were laid about one and nections of the pipes being made by means The following winter the boy got an old of India rubber, according to the method He also made a harness from a few old straps | valves are provided for shutting off the air and ends of rope and began driving the from separate lengths of pipe. On the incrack trotter of the town, best three in five, daily output, the power transmitted being, on an average, 500 horse power-a very fa-

see the trot, not expecting, of course, that | One of the most notable mechanical achithe little sheep, as he was called, would evements of late is the great pulley which make any show with the crack trotters of has been placed in the mill of the Williman-Sidney. The betting was slow, 10 to 1 tic, Conn., Manufacturing Company, for the loose volcanic soil, upon which the against the sheep, with but few takers. transmitting power from the mammoth envapour was being condensed in a pale yellow | The sailor invested all his summer savings | gine of that plant. This pulley weighs at those odds, and bet his silver watch and seventy tons, is twenty-eight feet in dia-"I thought we had run her down," said gilt chain against \$10, then got in and drove meter, and has a face nine feet across; it is After a short stav, they left the room once Greville. "Proofs that the old volcano is the colt himself the first two heats, and was cast in twelve sections, each section carrynot quite head:-Go on then, boy. We beaten in both. He then called the boy, who ing a spoke and a segment of the rim, the "I cannot bear it, Burns," cried Greville shall overtake her soon. She must have had been a silent spectator, and whose eyes latter being backed in its casting by what "Josephine, my child," said Greville so in agony. "It will kill her too. I must been here afore, perhaps to fetch sulphur or were filled with tears by the unfair treat is technically known as rib work, in appearto perform some mumbo-Jumbo tricks to ment of his little pet, and told him to get ance resembling a series of heavy iron in and drive the colt. The boy cheerfully panelling. Including the hub pieces, there For the dog was tugging to get on, and, mounted the old pung runners, and as soon are twenty-six parts to the wheel. The after dragging them in and out amongst the as the word was given for the third heat spokes alone weigh 36,000 pounds, the rim huge vesiculated masses of pumice, bare of called on the colt, which responded gamely, alone 96,000, and the bolting together of "It was a lie," he said-"I ought to have vegetation and glistening in the sunshine, shot to the front, won the heat with east the sections is by a series of 180 21 and 21 "Last night, I think, when she came to known-a beggarly, transparent invention; it suddenly made a dash downward for and almost shut out the crack trotter. Dot bolts. The power from the great engine is about a hundred feet, turned in at a broad won the next two heats without any trouble distributed from this pulley by three belts, cavernous rift in the mountain side, and then which ended the race. The sailor gave the one about 49 inches wide and two of 24 inches width each; the wheel makes 60 revolutions per minute, the surface travelling exactly one mile in that space of time. The "In with you, Burns, and bring her out. ment and severe hardships when the sailor shaft which this prodigious pulley hangs upon is some 21 feet in length, including Burns, with his heart beating heavily, drunken coal-cutter, who often let the little | the disks at either end, and of itself presents

The discovery of late, by some foreign chemists, that nickel combines with carbon monoxide to form a nickel-carbon oxide, nection with the development of nickel me home, 200 miles, on a saddle in four and plating. At that time the experimenters failed to obtain any similar compound of carbon monoxide with another metal, it is stated, but considering it strange that nickel should be the only metal capable of He said no more, but turned his head to took him to St. John, N.B. and entered him entering into combination with this particuthe sharply blowing breeze, took a deep in- in a free for all on the Torryburn track. lar gas, investigation was continued-more angrily "I believe you innocent, child; "Down, Nep! down, Nep!" he cried; and halation, and then plunged into the cave, There were seven starters. Dot got the especially with iron, and under very varied but it is through you that this horror has the dog crouched at once while his chain and staggered out dragging after him the word fully 40 yards behind the pole horse, conditions—resulting finally in demonstratbody of the wretched woman, till he was a vet he distanced the whole lot of them in | ing the fact that iron is volatizable, although "But surely you are not going to hunt the few yards from the opening, where he low- the first heat. The judges claimed that he apparently in very small quantities, in a had a "peculiar gait," and ruled him out, current of carbonic oxide. According to for which the people drove the judges from the account given by the experimenters, and published in the Chemical Journal briefcape of fumes," said Greville slowly. "There We never got Dot's winnings nor the money ly, they volatilized some finely divided iron has not been a cloud about the crater for we bet in the pools, amounting to over in a current of carbonic oxide at ordinary months. Poor foolish wretch! She must \$2,000. All the New Brunswick horsemen temperatures, the deposits given all the ave staggered in there, worn out, to lie left the track. The morning after the race known reaction of iron in remarkably bril-The exhibition at Glasgow, Scotland, of

Mr. Mills's new method of propulsion for marine craft has been extensively described, and would appear not dissimilar in its main I took little Dot to Boston, and after | feature to what had previously been proposproduces a vacuum, which must be filled by the inrushing water ere the ship obeys the forward impulse, and second, that the water at the bow of the ship offers resistance to its movement. Concluding, therefore, that the propeller should be placed at the bow, the plan in this case is that the shaft is "You won't suit me at all," as the man carried through the bow, bearing a conical propeller with a diameter nearly as great as the beam of the ship. The outside of the cone consists of webs projecting at right spiral, the action being thus a boring