and in that respect he differed considerably tion. "The quick trains are all in the from his chief friend, Oliver Westall, and forenoon.' closely resembled Humphrey Standish. Perhaps that was the reason why Humphrey singled him out from among all the other guests at Mr. Campbell's shootinghonour with hissociety. However that might | but twice on the road." be, before they had been a week at Inverarran they were the closest of friends, and their lives.

people's destinies are from what they ought and Humphrey sat talking together in his | "by putting them on their guard." room after they had retired for the night. are just the unluckiest beggars on the face | the station. of the earth, and vice versa. There's a case in point," he went on presently between the whiffs of his cigar, finding that Humphrey did not answer, "in something my friend Westall told me in a letter the other day. He says there's an awfully charming girl staying in the hotel he is at-a perfect marvel of everything that's charming, according to him; indeed, if it weren't old Oliver, I should declare that he was in love with her himself. And now, this priceless paragon, this goddess in human form, is going to marry a wretched old foreign fellow-a Malay, or something of that kind-a chap whom everybody seems frightened of, and whom she herself, according to him, detests, or at anyrate does not care two pins about. Now, what the dickens does a handsome girl-one who could marry whom she chose and when she chose, want to go and tie herself for life to a man who isn't even an Englishman-or even a European, but a wretched Oriental, brimful, doubtless, of deceit and underhand ways Pah! the thing makes me sick." And he looked very much disgusted.

Humphrey did not say anything. He was thinking of Avice's mother.

"I only knew one Malay," his friend resumed, " and he was a scoundrel. An outand-outer, I can tell you. His name was Mutwanee, and I never had such a desire to see a fellow-creature hanged as when I was talking to him. He came over in the ship I came from the Cape in, at the beginning of this month-or, rather, it was the end of last. I shouldn't wonder if this were the same fellow," headded, meditatively; "and if so, I pity the girl. He has two or three Standish! wives already.

It was growing too late for any more con versation just then; but the next morning, after breakfast, D'Arcy joined Humphrey

on his way up-stairs.

"It's the queerest thing I've heard for long," he cried, glancing at an open letter in his hand. "You know that fellow Mutwanee I was talking of last night. Well, it seems that he is the very fellow whom Miss Sacharty is to marry. I wonder her people"--

" Who did you say the girl was?" interrupted Humphrey hoarsely, clutching as if for support to the balusters. "Miss who?" "Sacharty," rejoined the other, startled quite happy! by his voice and manner; then, catching sight of his white face, he added: "Why, Standish, man, what's up? You look as if

you were going to faint! But Humphrey by a supreme effort managed in a great degree to regain his selfcomposure. "I'm all right," he returned. "But, come in here; I want to hear all I

can about it."

With a rueful thought of the shooting he would miss, Jack followed his friend into the deserted smoking-room and told him all he knew. It did not amount to much after all, being merely the little scraps in Oliver Westall's letters; but it was enough to draw a low groan of horror from the startled and dismayed Humphrey.

"It is some fiendish plot of her father's," he cried fiercely. "Av-Miss Sacharty could never, never have consented to such a thing of her own free will !" Then, after a moment's pause, he went on more calmly : "Does your friend say whether her aunt knows of it? Is she also in the game?"

"No," returned D'Arcy, glancing at the letters in his hand; "there is nothing about an aunt, only a note that the girl herself is a half-caste. - But if you know the aunt, you might be able, if not to stop the marriage at once, at least to delay it till she comes. And remember, I know for a fact that Mutwanee has at least three or four other wives. There was a fellow on board who knew him very well, and I daresay we could get hold of him somehow as a witness. He knows all his past history."

"Ah," returned Humphrey gravely, " think then I'll go off to the nearest town and telegraph to Miss Marchmont-fortunately, I know her address-and then I shall be able to decide on my course of action. To-day is Thursday, so there is no time to be lost. Then, after a moment's pause, he added apologetically: "I'm afraid I've spoilt your day's sport for you, old fellow! What a nuisance you must think me! But you see-I know Miss Sacharty very well, and the thought of her danger!" He broke off abruptly and covered his face with his

D'Arcy looked compassionately at him. "Never mind the shooting, old man!" he returned with attempted levity. "Those other chaps can't bring down all the partridges, you know. And I tell you what, I'll come down to the town with you; the walk will do me good !"

Humphrey pressed his hand gratefully, and hastily putting a few things into his travelling bag, in case of having to go to Strath Carron, he set off with his friend.

"We'd better stay here till the answer comes, I think," remarked D'Arcy as they turned away from the telegraph office. "There will be more chance of a speedy answer then."

It was not until the afternoon that the re-

anyrate!" And thus encouraged, Humphrey | not proceed. read the message, which ran as follows: Am starting directly. Rely on your help." warrent, to beard the lion in his den." And pigmy might look at a giant. D'Arcy set his face in the direction of the Sacharty was the first to recover quietly. "Kilmur must have forged it him-

station as he spoke.

time to lose.'

latish, I should say, sir," continued the unwarrantable intrusion.' Jack D Arcy was a universal favorite, station-master in reply to his anxious ques-

"What time will I get there if I go in the morning?" inquired Humphrey quickly. "Well, sir, ye'd maybe get there about

ten o'clock, if ye took the quarter to seven. box as the one whom he chose chiefly to That's the best train o' the day; disna stop

phrey, turning to his friend. "I can't do felt as if they had known each other all any good arriving in the middle of the night.' "Odd thing, isn't it? how different some in the station-master by way of comment.

"And might do harm," continued the to be," said Mr. D'Arcy one evening, as he young man, not heeding the interruption,

D'Arcy acquiesced in the wisdom of this "Some people, whom to look at you would argument. "Shall you stay in the town for say were born for happiness and prosperity, the night, then?" he inquired as they left

> coming in so early, wouldn't it? But I'll walk a bit of the road back with you.'

And they turned away together into the

quiet high-road which led to Inverarran. "It's awfully good of you to have helped me so!" cried Humphrey, when at length

they parced. "I should never have known about it if it hadn't been for you!" " Pooh! my dear fellow, it was nothing, returned the other, giving his hand a hearty

shake. "I hope I'm not such a monster as to see a girl sacrificed when I can help her. "Poor fellow!" he muttered to himself afterwards as he watched Humphrey's tall form fading away in the distance. "He's very hard hit, and no mistake." The quarter-to-seven train amply justified

the station-master's boast, and punctually at

bare-looking station of Strath Carron. The hotel-there was only one of any repute in the place—was not far from the station, the porter said; and it was without much difficulty that he found himself at last at its door. then seeing who it was who had thus invad | quarter to. ed her solitude, she sprang up with a little

and fragile she had grown, and how hot was | be long.' the little hand which he held so tenderly in his. "Miss Sacharty!" he said sorrowfully, and he set off. "what have they been doing to you? You look like your own ghost !"

"Why should you pretend to me, your old among them. She looked anxious and companion of so many delightful weeks, troubled; but a smile of genuthat you are quite well, with a face like ine pleasure crossed her face as

she determined to put a brave face on the reached the hotel she rushed up-stairs to see matter. "I ought to be," she returned, her trembling voice belying the words. "Don't you know that I'm engaged?"

"I have heard so," he returned gravely : "but I cannot and will not believe that it is by your own free will. Tell me truly, now his own assertion that seemed for the time to nerve her enfeebled will.

"No," she replied, in a low tone, so low that he could scarcely catch the words-" no, it is not by my own free will."

you to take such a step?"

showed how strong was the influence Mut- with care she may recover; but I tell you so much in shore that raking is impossible, wance had upon her, she told him the story | frankly that I fear the worst." of the past few weeks; and ere she ended,

Mr. Mutwanee?"

"He is out too."

nothing. And be assured whatever happens hope from him. I will save you!" With these words he left | When he returned, he found that a mesher, and went in search of Mrs. Douglas, senger had arrived from the police court with with whom he had a long and earnest con- a polite request from the superintendent the marriage to begin before he appeared to to his horror that Tehander Mutwanee had stop it. "Otherwise, they may escape us been found dead in his cell that very morn- \$8 to \$9 per toise. yet," he added oracularly.

who knew of the tragedy which was being visible cause of his death. "And I thought," enacted in their midst. Sacharty was very continued the official blandly, "that you things quiet. The wedding was fixed for to work upon." was no one.

numphrey; and on pretence of arranging scence. be all right—only trust."

and the ceremony began.

cheerily; "the old lady's on your side at | those of all present: "This marriage must | your marriage?"

himself. "Must it not?" he inquir- self." Humphrey followed him. "Yes, that ed sneeringly; "And why, pray?" | And then, since he was dead, and they with distinctly developed tails.

would be best," he returned; "there's no Then, recognizing Humphrey's face, he were loth to speak ill of him, the subject There was no train to Strath Carron till | "Perhaps, Mr. Standish, you will be good | in a little later, found Avice alone, for Miss eight o'clock. "And you won't get in till enough to explain the reason of this most Marchmont had suddenly recollected an

turned to the clergyman. "I come," ne said quietly, "on behalf of Miss Sacharty's legal guardian, to stop this marriage as an faces with its dying rays, they plighted the iniquitous and illegal affair. This person -indicating Mutwanee, who stood erect and | part.' defiant, evidently determined to brazen matters out as best he might—" this person is not a Christian, and has, as can be proved "I think I'll wait for that," said Hum- if necessary, several wives already in his

Timid little Mr. Strachan looked horri-"It widna be before twelve o'clock," put fied, and edged farther away from the

Oliver to take charge of Mrs. Douglas.

"Yes, I think so. It would be awkward Twisting his supple form out of the detain- a calling is pursued, as it is only made practiing grasp of the constable, he drew a revolver | cable or profitable by the natural conditions from his inner pocket and levelled it full at of the country. Though it has attained his captor. The constable, quick as thought, quite a position in commercial sense by rea-Sacharty, who fell back without a groan. it. trial for murder and attempted bigamy.

It was with difficulty that Humphrey succeeded in conveying Avice back to the hotel, for the poor girl's nerves were so shaken by what she had gone through that she could hardly stand: and when at last they did ten o'clock Humphrey stepped out on the gain the hotel hall, she looked so dreadfully ill that he was fain to relinquish her into the hands of Mrs. Douglas, who insisted on sending her at once to bed.

As he stood watching her feebly mounting The waiter assured him that Miss the stairs, Andrew touched his arm. "Beg Sacharty—he had not dared to ask for her pardon, sir," he said; "But there's a father—was up-stairs; and up-stairs he ac- | telegram come for you a while since; and he cordingly went, and, motioning aside | handed him a salver with an ominous-looking the obsequious waiter, entered the room | envelope on it. Humphery opened it before which he had stopped. Avice, who hastily. It was from Jack D'Arcy. "Aunt was seated in a low chair by the window, telegraphed, coming Strath Carron this raised her head listlessly as he entered; morning about twelve." It was then a

"Thank goodness!" he exclaimed, replaccry of joy. "Mr. Standish!" she exclaimed ing the paper in its envelope-"thank advancing quickly towards him-"Mr. goodness!" Then turning to Andrew he said hurriedly: "Just tell Mrs. Douglas Humphrey noted with distress how white | that I am going to the station. I shall not |

The train was late, as trains generally are when one wants them to be punc-A sad little smile crossed her face. "It tual, and it was fully a quarter past is nothing," she returned, with attempted twelve ere it steamed into the stalightness, "nothing at all. I am quite tion. There were very few passengers "Quite well!" he echoed reproachfully. distinguished Miss Marchmont's spare form The girl's lip quivered at his words, but | fully upset Avice was; and as soon as they her darling niece. Avice was tossing about incoherently as she turned from side to side. Mrs Douglass sat watching her with a troubled face, which, however, brightened or hooks. as Miss Marchmont entered. She felt that sponsibility of the nursing on to her.

And a heavy responsibility it was; for the doctor, whom Miss Marchmont had at once summond in her alarm, declared that the girl was suffering from an acute attack of brain fever, induced by the excitement of "I knew it, I knew it!" he cried joyfully. | the past few weeks, and he could not say "But tell me, how could anyone persuade what the end might be. "She may recover," Slowly, bit by bit, with an effort which with Miss Marchmont the next day. "Yes, Lake about 10 A. M., it discolors the water

Humphrey had decided on his course of ful individual, who preferred looking the other hand, the farmers along the lake the sixteen-inch rifle is thirteen miles. on the bright side of things, and thus shore have a decided objection to the hook-"Is your father in?" he inquired abrupt- his ominous words struck a chill into the ermen removing the stone from the shore, ly, as she finished speaking. "No? And hearts of Miss Marchmont and Humphrey. The latter was hanging about the hall to be undermined. The consequence is that as he usually was, waiting for the slightest "Good. Then don't let either of them news of Avice; and he walked to the end of know I'm here. Remember, whatever that the road with the doctor when he departed, approach nearer than fifty feet from the

ing. A post-mortem examination had been There were not many people in the hotel determined upon, as they could find no

set her so terribly that the subject wasnever | weight.

"Delay marriage. S. no power over A. except Avice and Mrs Douglas, who had for the first time her aunt heard the story 100 days. been in a measure prepared for them. The of the letter. "I felt as if my last hope had "Well, now, as you've got your bag here, | timid little clergyman dropped his book in | gone then !" the girl added as Miss March- | practically stated that the most money can | I think your best plan would be to go off at | terror and gazed at Humphrey, who was | mont stroked her wasted hand thoughtfully. once to Strath Carron, and, armed with this followed by two constables, much as a That lady did not speak for a few moments. | weight. "I did not write it," she said at length

continued with exaggerated politeness: was dropped for ever. Humphrey coming errand she had in the town; and there, in Without deigning a reply, the young man | the quiet light of the spring evening, he told her how he loved her; and hand in hand, the glory of the setting sun lighting their troth which was to last "till death us do

THE END

STONE-HOOKING ON LAKE ONTARIO.

Hardy Fishermen Who Carry On a Unique I-dustry.

When the scriptual writer referred to the heartlessness of giving a stone to a seeker Humphrey meanwhile had given his con- after bread he had evidently never heard of stables instructions to detain the two con- the "stone-hookers" of Lake Ontario. federates, and then taking the trembling These men seek stones for their daily bread, Avice by the hand, he led her away, leaving and seek them in the bottom of the lake, from the depths of which they fish up the But Mutwanee had no intention of sub- boulders with long hooks. In all probability mitting to his fate without a struggle. it is the only place in the world where such sprang aside, and the contents of the cham- son of its extent, there are probably few ber were lodged in the heart of the wretched outside the business who know much about

The other constable, thus released from Many tourists in that region will doubtless guard, advanced swiftly towards the Malay, observe long lines of rough-looking schooners who was preparing for a second shot, and anchored off shore, especially on fine, calm suddenly wrenching his weapon from his mornings. They lie there with their patchgrasp, slipped a pair of handcuffs on him, ed and blackened sails brailed up, swinging and, assisted by his comrade, marched him in apparent idleness at their anchors, while off to the town prison, there to await his at some distance from them two or three soiltary-looking men in a scow angle with long poles which they thrust down in the water. These are the hookers at work. Their business consists in fishing up large wall could be made for testing the power of and small stones from the bottom of the a monster than this, lake near the shore to be used for building purposes. Their principal ground of opera tion lies on the north shore of Lake Ontario between Bronte and Whitby. The vessels engaged in the lasiness are mostly scowbuilt (that is, flat at both ends) and schooner-rigged, with a capacity ranging from two to ten toise of stone, a toise being about a cord. Some are rather handsome, wellequipped boats, and one that used to sail from Port Credit was said to have been a crack Toronto yacht at some former stage of its existence. On account of their heaviness when loaded with stone they carry long raking masts and an immense spread of canvas, which is all right as long as they are loaded, but makes them mighty cranky when running light in a gale. Their outfit consists of a large scow, longhandled iron rakes, sledge-hammers and shovels.

They make their headquarters at ports on the lake shore, and fine mornings about 3.30 The waiter turned to execute his order, they may be seen stealing slowly out of port. Wrapped in the ghost-like shore mist they drift noiselessly down a mile or two and then the silence is broken by a hoarse command. There is a trampling of feet on the deck the anchor drops with a splash and the chains rush after it. The captain and one man, for Strath Carron, and Humphrey easily dressed in warm clothing, with high rubber thigh-boots and waterproof aprons, jump into the scow and pull off towards the shore.

There are three methods of securing the stone-quarrying raking and " blind stabthat! I suppose next you will say you are Humphrey greeted her. It changed to a bing." Quarrying, as its name implies, is look of alarm when he told her how dread- simply going on shore and breaking away pieces from the low cliffs with sledgehammers or picking stone off the beaches.

When raking, the boats move along within a restless sleep, talking fast and almost in a short distance of the shore, where the men can see the bottom and pick up the

When stone is scarcer they move out into it is not so?" He looked at her eagerly, im- she could now shift part at least of the re- deeper water and drag their hooks along the the button. The enormous projectile was bottom, pulling in all t hey catch. This is called "blind stabbing.

Under favorable circumstances a hookerman can make from \$40 to \$60 per day; but as may be supposed, such occasions are few and far between. As a matter of fact, man and the elements conspire to make the hook. er's life anything but a happy one. If the he said doubtfully as he went down stairs wind freshens up, as it usually does on that while the accompanying rough water makes As a rule, Dr. Forsyth was a hope-blindstabbing a hazardous employment. On as the banks are thus weakened and liable some years ago farmers got a bill put through the Legislature that no hookerman should tellow asks you about me, you are to tell him trying to win some crumb of comfort and shore under a penalty of not more than \$50.

This stone is mostly fine limestone and is obtained in large squares. Every heavy gale from the east throws up large quantities of stone, but during the Summer months versation, at the end of which it was agreed | that he would come and speak to him on a | the hookers pick the bottom of the lake near that Humphrey should lie perdu in the town | matter of great importance. Sick at heart | the shore almost bare. They dispose of the until the next day, and that he should allow he set off, and when he got there he learnt stone in Toronto, where it is used for building foundations, and the price paid is from

Economic Weight of a Hog

Experiments made for the purpose of declose about his private affairs, and Mutwanee might know something of the deceased's termining the economic weight of a hog released from the 10,000 kernels of cocoa had his own reasons for wishing to keep habits, something that would give us a clue show conclusively that he never should be powder erodes great furrows in the temperfed beyond eight or nine months of age, and ed steel lining of the gun at every discharge. eleven o'clock, an hour when most of the But Humphrey knew nothing, and so that the largest profit is found, as a rule, in The next smaller but sufficiently powerful visitors were at the baths; and when the was suffered to depart. A few days later a weight not to exceed 200 pounds. What gun is supposed to last for 120 rounds, while time came there were few in the little church he heard that the doctor's report had is known as the food of support plays a to build it costs \$70,000-\$30,000 less. beyond the brideand bridegroom themselves. been "Suicide by poison." But he very important part in the profit or loss of Moreover it takes two years to build the Of course Oliver Westall was there; he con- did not pay much heed to the matter, large weights. Suppose, as many farmers larger and but eighteen months to build the sidered it his duty to "see the last of that | for both he and Miss Marchmont were say, that a resolution is made to turn the smaller. poor little girl;" and the Digby Brownes | too much occupied with axiety about Avice, | hog when he reaches 300 pounds. He must | had also turned up; but beside them there who was hanging between life and death. take from his food an increasing amount about twelve years ago by Sir William Arm-As the doctor had predicted she had a each day to support the weight already strong & Co. In all, 109 of them have been As they walked up the silent aisle, Mrs. hard fight for life; but at last, though as gained, or else he drops back. The German built. The Krupp works turned out one 17-Douglas noted how anxiously Avice's eyes weak as a child, she was pronounced out of experiments indicate that two per cent, of inch gun of 127 tons weight—the most powerglanced from side to side in search of danger, and entered upon her long convale. the live weight, in food, must be taken ful ever built. Of the big fellows, the great each day to support that live weight. If majority went to Italy. The first ones were her collar, she managed to whisper: "It will It was months before she regained any- the hog weights 300 pounds this amounts to muzzle loaders. The Victoria, the Sanspareil, thing like her old health and for long the six pounds of food daily. The only profit is and the Bebow have two, each mounted, and The girl answered by a grateful smile, least allusion to the events of September up- in the food that is applied to make new one each in reserve. There are two each

The clergyman, a nervous little man, had mentioned. At last one day, of her own A recent pig feeding experiment at the if any, criticism of their use in forts, for their concluded the general exhortation, and was accord, she asked where her father was ; Maine Station illustrates this principle ex- weight and room occupied count for nothing. beginning the particular charge to the and then Miss Marchmont gently told her cellently. The page were taken at ages ply came, however. Humphrey tore it open betrothed couple to declare if they knew of all, and how she need never fear Tehandar ranging from five weeks to eight weeks. as now mounted is the penetrability. Every with trembling fingers, scarcely daring to any lawful impediment to their marriage, Mutwanee again. There was a short pause, During the first 100 days of the experiment ship that has them must go into action with read the scrawl on the pink paper inside. when steps were heard coming quickly up and then she went on hesitatingly: "What not far from two pounds of indigestible food from twenty to thirty feet of each muzzle D'Arcy impatiently looked over his shoulder. the half-darkened aisle, and Humphrey's was that letter you talked about so often in produced one pound of growth, while during projecting into the open air in plain view of "Come, cheer up, Standish!" he cried voice rang out clearly in Avice's ears and in your illness, Avice, one from me sanctioning the last fifty days the ratio was four pounds the enemy's gunners, an ample target for the of digestible food to one of growth. Every rapid-fire cannon. The modern rapid-fire Avice looked puzzled for a moment, then pound of pork made during the last fifty gun hurls a sharp steel bolt from four to six The words fell like a thunderbolt on all she said: "Oh yes! I remember." And days cost double to that made in the first inches in diameter and weighing from 32 to

The lesson taught by this principle is gun, at the rate of ten per minute. be made from young hogs turned at medium

A prehistoric cemetery recently unearth-

POWER OF THE 16-INCH GIN.

Wonderful Result at a Special Test in England.

In March last the British Admiralty determined to test the full power of a sixteeninch 110-ton rifle, made for the great war ship Sanspareil. The gun was set up at Shoeburyness. In front of it was built such a target as the world never saw before. First, to receive the impact of the ball, was a solid steel armor plate of the best make, twenty inches thick. This was backed by an eight-inch iron plate. This in turn was backed by twenty feet of oak timbers, the whole being secured together to form the most solid mass possible. Back of the timbers was a granite wall five feet thick and laid in cement. Then to brace the wall they built up a solid mass of concrete eleven feet thick, and a six-foot wall of

To fully appreciate what a substantial mass this target presented, one must consider that the twenty-inch armor plate is the thickest ever used on a ship. The armor on the Empress of India, the very latest of British battle ships, is but eighteen inches thick, while her barbettes are seventeen inches. The eight inches of iron behind the armor plate of the target was a most efficient backing because of its toughness. As to the oak, it should be remembered that "the wooden walls" of which the sailors used to sing, though never more than two feet thick, were able often to stop the projectiles of the enemy at short range. In this target was a twenty-foot wooden wall.

Children sometimes ask, in speaking of the big guns. "Could they shoot through a house?" In this target is a wall of granite five feet thick, and it is a mighty tall building that requires a five foot wall at the street floor. But what need to say more ? No better

A description of the gun that was fired at this target is worth giving. The diameter of the bore was sixteen inches. It consisted of a steel tube forty-seven feet long, around the breech of which had been shrunk numerous steel jackets to give it strength to resist the terrific strain of the exploding powder. The whole weight was 110 tons. It was mounted on a carriage , which could be moved only as the gun itself was moved on its trunnions, by hydraulic and steam power. Having it in place before the target, the gun's crew unscrewed the breech hauled it out, and shoved it to one side, all by means of hydraulic engines. Then they hoisted up the projectile with another machine. This projectile was of solid steel, sharp pointed, and nearly four feet long. It weighed 1,800 pounds. It had a copper collar which was to catch in the rifles of the bore and send the projectile whirling. This projectile was rammed into its place in the cannon with a machine. Then came the powder. This powder is made in little hexagonal cakes of a cocoa color with a hole through the centre of each. Ten thousand of these little cakes are required for a charge for the big gun, and the weight of the charge is 960 pounds-more than half the weight of the projectile. In the most powerful express rifle used by sportsmen the

300 grains. The cannon is away ahead. The powder charge is made up into eight cartridges of 120 pounds each. The cartridge bags are of silk, and a layer of black powder, which burns faster than cocoa, is put in the after end of each bag. The charge of powder is rammed home by machinery.

proportion of powder to bullet is as 120 to

Having the gun loaded, the breech was stones they find with the long-handled rakes | closed, an electrical connection was made with the charge, the gun was pointed at the hurled from the muzzle at 2,079 feet per second through the armour plate, the eightinch iron plate, the twenty feet of wood, the five feed of granite, and the eleven feet of concrete, to bury itself at last in the brick wall andremain there.

Another way of comprehending the power of one of these great rifles is to consider the range. Roughly speaking, a rifle will throw a projectile a mile for every inch diameter of bore. The six-inch rifle has a range of six miles, the eight-inch of eight miles, &c. In actual practice the range of

In spite of its tremendous power, however, no sixteen-inch gun will again be mounted on a war ship. The new battle ship, Empress of India, is to have thirteen-inch guns instead. These will be of ample power, for at 1,000 yards the projectile will pierce twenty-seven inches of wrought iron armor. In spite of its power, the objections to the big gun outweigh its advantages. The thirteen-inch gun weighs but sixty-seven tons—forty-three tons less. The discharge of the great fellow over the deep of the ship plays havoc with the deck, the blast of the gases has broken deck beams and opened the seams. The big gun costs just \$100,000 to build, and the greatest number of times which it can be safely fired is calculated at seventy-five. No one knows whether it would last even as long as that; very likely it would not, for the impact of the gases

The building of 110-ton guns was begun at Malta and Gbraltar. There is very little,

The one insuperable defect in the great gun 100 pounds, according to the bore of the

A Battle Creek, Mich., man has patented a typewriter for musical composers. The copy which it makes can be photographed and a plate reproduced for printing which ed in Mexico contained the skeletons of men is said to be much better than plates made in the ordinary way.