## THE GREAT MINE.

Precautions Taken to Guard Against All Accidents.

RENDING THE ROCK.

How the Columns and the Roof Rock Will Be Destroyed.

FLOODING THE MINE.

The Operation Performed by Means of a Siphon.

THE BATTERY BOMBPROOF.

Boxing the Wires Leading Through the Headings.

OPINIONS OF ENGINEERS.

How the Astorians Regard the Approaching Big Blast.

The destruction of every part of Hallett's Point reef above the level of twenty-eight feet soundings by the sinfultaneous explosion of several thousand holes filled with heavy charges of nitro-glycerine and dynamite is n undertaking that necessitates the utmost precaution guard against accidents and failure. With regard to the provisions against the former they must be con-sidered in two classes, local and general, and as such they will be explained in the present article. The first are of the engineers is to protect the expleding apparatus from injury by any parts of the rock that may be projected from the reef by the core of the explosion. This they have accomplished in ratified rock such as that of Hallett's Point roef, which s been excavated with tunnels and transverse gallerthe effects produced by equal charges of explosive in all the holes will differ very much in character. It must be remembered that the resistance offered by a ared by the shortest distance from the centre of the sharge to the free surface and by the cohesiveness of ermed the line of least resistance, or that along which energy of the expanding gas generated stion of the explosive finds the least ob acle to its force. It a hollow sphere of tron, a shell, umferences, is charged with powder and fired, the octure will take place where the shell is thinnest, and oper, if a cubical block of stone is perforated obely to the plane of its sides, so as to leave a greater the other, the weaker portion will be to pieces by the explosion of the so only cracked into pieces. Now, if the density of the gnoiss rock at Hailett's Point was equal through-out the entire mass it would be the easiest thing posable for experienced mining engineers to calculate and, indeed, to regulate, the effects that would be prosuced by the explosion. They could graduate their sharges both as to strength and regulate thom as to lose, and feel confident in the results being as they But with a forma being complicated by stratification, rther by the peculiar directions of the galleries adings with relation to the line of stratification, be headings have been driven at right angles with this regular blocks of the same thickness of across what might be called its grain. To make this a little clearer, let us suppose two blocks of wood cut from the same piece, and with the same character of fibre. Now, one of these is simply split by the action of a wedge with comparatively little effort, while if we try to tear the other end from end the resistance will o immense. In the same way the explosives will hat support the roof. To overcome the differcuce in the resistance of the rock the engineers have made careful esiculations by which they determined the requirements for each column sepa-rately. Perfect diagrams of the mass were made, givng its variations of outline at several heights from th

rately. Perfect diagrams of the mass were made, giving its variations of outline at several heights from the ground line to where it connects with the roof. The stratification was indicated on these, together with the poculiar degree of cohesiveness in the particles of each stratum, so that in reality the graduation of the charge is made to depend on local conditions, each set of cartridges having a specified amount of work to perform on a given mass of rock. If the utmost foresight, therefore, can secure the best results, so far as the destruction of the columns is concerned, the operations at Hallott's Point promise to be eminently successful.

With regard to the root rock or the unfouched theil of the reef, all the varying conditions described in the columns exist in it also, with the additional complication of its archible happe which makes it almost self sustaining. Could the columns be removed from under this rocky shell the probability is that it would not fail to sustain its own weight, and that of the superfocumbent water. In dealing, therefore, with the roof, General Newton has wisely limited his prospective results to a general fracture of the shell with moderate charges introduced at considerable intervals. These charges being fired simultaneously with those that shatter and rend the rock columns beneath are intended to assist in breaking up the root, while it subsides on the debris of the columns and scatter it in small pieces all around. It is here that will be found the value of this plan as a local precaution against accident. In order that any portion of the shattered columns should be thrown by the force of the explosion to a great distance it would be met above the rock by an intushing column of water many leet deep, which would so retard its motion as a local precaution against accident. In order that any portion of the shough an opening large enough to permit the passage through of a great distance it would be met above the rock by an intushing column of water many leet deep, which would so

and as the water could not yield for want of vacant space, the resistance offered to the force of the explosion will be very considerable. But another point must be remembered in this connection, and that is the rapidity of combustion which is a posuliarity of the explosives used. Water resists a sudden application of pressure but yields easily to a slow one. This is very simply illustrated by dropping a stone into a pond from a great hoight and repeating the operation close to the surface. If a stone is thrown off the top of High Bridge into the Harlem River it strikes the water with great force, causing a break in the surface of the river, which could only occur through the water offering a powerful resistance to the passage of the stone. The stone then sinks to the bottom with a comparatively slow descent. Now, take another stone and hold it only one foot above the surface of the water. Brop it, and it will enter the water without causing any considerable disturbance, and will reach the bottom in the same time as did the stone dropped from the great beight. It shows, therefore, that when a powerful resistance will be in proportion to the energy of the shock, and in this way it is possible to show that water forms a greater obstacle to the expansion of the gases from the exploding cartridges than the rock itself that surrounds them, the resistance of the latter being unvariable, while that of the former is augmented, as explained above.

surrounds them, the resistance of the latter being unvariable, while that of the former is augmented, as explained above.

With the cavernous chambers then filled with water it will be impossible for the charges to fail in destroying the rock columns completely, provided the former are properly located and of the necessary strength. Regarding the flooding of the workings as a measure of precaution against the projection of pieces of rock it can be reamly seen that it will prove effectival. It has been stated by some engineers that because masses of rock were thrown upward from great depths of water by the force of explosions that there is necessarily danger to be apprehended at Hallett's Point, but the circumstances that surround this unique work differ wholly from those attendant on ordinary submarine blasting. It has been shown that the roof rock acts as a guard against the flying upward of pieces from the columns; it has been shown that water resists pressure in proportion to the force of that pressure. It may be also stated that a body moving through water, either slowly or rapidly, tends to follow the line of least resistance, which would be a line perpendicular to the surface. Therefore a mass of rock flying from the centre of explosion should first overcome the resistance of the water, which would tend to decrease its motion; second, it would be stopped by the descending weight of the roof rock; and, third, even if neither of these influences acted decidedly on its movement, its course should of necessity be upward in a perpendicular line, and its fall naturally in the exactly opposite direction. No one ever saw a piece of stone blown out of deep water in a direction at less than a right angle with its surface. Therefore all fast of flying lumps of rock reaching New York, Astoria or Ward's Island might be dismissed at absurd.

therefore all fear of flying lumps of rock reaching New York, astoria or Ward's laland might be dismissed as absurd.

When all the other preparations are completed the operation of filling the weekings will be accomplished by means of a siphon which is arranged to pass through the coller dam and admit the water with an easily regulated flow. We present a diagram of the syphon and its mode of operation with the present article. When ready to be used and the tide at the full height the inlet valve will be opened on the top of the syphon, on which the water will at once flow in and expel the air from the entire length of the tube. As the tide falls below the level of the top of the tube the flow will cease to decend on gravitation, and will assume the character peculiar to siphenic action. The water will be drawn up into the tube by the difference of pressure of the atmosphere on the long and. This can be expressed by the difference between the weights of the long and the short columns of water, the operation of the syphon being dependent on a disturbance of the equilibrium of pressurs. When the excavation is filled to the river level the color dam will be partially removed, so as to admit of a iree flow of water in and out, according as the tide rises and falls.

THE BOME PROOF SHELTER FOR THE BATTERIES.

As an extraordinary precaution against accidents General Newton has caused to be built a stout bomb

SION-SCARE AMONG THE PROPER OF ASTO-RIA-A MAY MORNING IN SEPTEMBER-LOOK OUT FOR THIEVES-THE WORK APPROACHING COMPLETION.

workmen were "busy doing nothing," as the for expressed it. In other words they were moving scaforder ready to handle the anxiously looked for mater when it should arrive. Carpenters were employed all made of one inch pine plank, each about twelve feet long and one foot square in the clear. These will be or case which will run from the bottom of the shaft up to the surface of the ground and thence across to the bombproof structure containing the battery. Ra-diating from the end of this box, which rests upon the floor of the shaft, will be smaller boxes of a similar character, one leading to the mouth of each heading. Through each of those smaller ones the ex-ploding wires from its own heading will be thrust in order to keep them from injury from falling bodies or other causes. All the wires from the entire 189 groups will thus converge in the larger box or pipe and pass through it to the battery. The siphon, already described. was also completed vesterday.

Late in the afternoon a message was received from the contractors stating that the dynamite was then being shipped and would be delivered at an early hour this morning. Should it arrive without accident, the work of charging the holes, which is not yet completed, will at once be proceeded with and at the same time the filling of the primers or explodent cartridges will go on in the little temporary sheds erected for that purpose at four different points upon the grounds. Should nothing unexpected happen, the charg-ing, putting in the primers and flooding the excavation will probably all be completed by Saturday night. In that case the expression cur on Sunday next, as General Newton will not permit the mine to remain one moment longer than is necessary after the arrangements shall have been com-pleted. The General has been much annoyed by let-

necessary after the arrangements shall have been completed. The General has been much annoyed by letters from persons seeking to verify the correctness of statements made by newspapers to the effect that the "big blast" would occur on certain days. He has never been able to do more than conjecture the time himself, and his guesses have all been thrown out of joint by the delats of the contractors referred to. Should the expected material arrives this morning, however, he thinks the blast will occur on Sunday, or Monday at furthest. Notwithstanding the wine advertisement given to the fact that no visitors are admitted, hundreds vasited the piace yesterday, and all the vigilance of the one-armed gaardian of the spot was required to keep them from scaling the low fence which shuts in the grounds. Among the sightseers were not a few ladies, who, despite the dangerous character of the locality, were exceedingly disappointed in not being able to gain admittance. The pleas on which admission is asked are varied as they are amusing, but the instructions of the watchman are peremptory, and no one passes him who has not the special permission of General Newton or Captain Morcor.

Wight the Keplosion will harpen.

Notice of the time of the explosion will be given by the officials just as soon as they with any degree of certainty can toil when it will occur. It will be advertised in the newspapers and notices will be posted up at prominent points in the vicinity. Persons living very close to the reef will be notified by men sent directly to their houses. Arrangements for the preservation of order on the occasion have been almost completed. On the shore a force of some hity solders from the fortifications in the harbor will be drawn up in line a short distance from the shalt to keep at a proper distance the throng of carlous people whe will doubtless be on hand. Police Captain Woods of Long Island City will also detail about thirty policemen to assist the military. On the river red lags will be waved to notify vessels of th

eral Newton will send invitations thither as soon as the time for the event can be fixed. The steamboats will each leave a different pier on the East River on the day of the explosion with the invited guess. A limited number of tickets have been printed for the occasion, and they will be judiciously distributed. They are printed on fine cardboard, and read as follows:—

EXPLOSION AT HELL GATE, September —, 1876.
Steamer will leave pier —, East River, at — P. M.
Show this card at the boat.

The place of departure and the date, it will be observed, are left blank, and will be filled in with pen and ink when the time and place shall have been decided upon. The joily Teuton who dispenses beer just outside the grounds exclaimed yesterday:

"Mine Gott, I hope dey blow it up on Seterday. Den de growd vill all goom on Sunday, and I vill sell a hoondred kegs of peer!"

ANLIFT IN THE NEIGHBORHOOD.

The forthcoming explosion of Hallet's Point Reef be-

The forthcoming explosion of Hallet's Point Reef being the all-absorbing topic at the present time, it is but natural to infer that those residing in its immediate vicinity should feel very uneasy as to its probable effects. There is no exaggeration in saying that in and around Astoria there is a widespread fear of danger, and no eassurances from General Newton will in the least tend to allay that fear. The expressed opin-one of many engineers that the effect will be wastly different from what General Newton predicts seem to have taken deep hold of the people in general, and all are making preparations to avert as far as possible the expected demolition of property.

An old gentleman whose dwelling, somewhat remote from the scene of the expected explosion, boasts of a rather high chimney, was yesterday seen taking down that useful appendage, lifting off the bricks one by one and piling them up in his garden. It was better, he said, to take them down safely than have them thrown

modern society, and the careless disposition of various household articles indicated the unrestrained habits of a thoughless bachelor. Upon a shelf nailed against the wail in one corner was strewn some straw, which evidently served for a bed, a goat was playfully butting its horns against the weather boarding in the rear wall of the mansion, a troop of ducks waddled promiscuously about the floor giving went to their peculiar cry, and seated near a small pine table gazing at them with a calculating air was the man of the house. He was about filly years old and attired in a blue flannel shirt much the worse for wear, and a pair of bue overalls, while his leet, encased in lime burned brogaus, were clevated upon the table. He gazed carelessiv upon the reporter through the whifts of smoke emitted from a nipe which breathed odors not ambrosial, as if he were an old acquantance. The man was evidently in a mood of perfect happiness and solf-satisfaction.

"Well, old man," said the scribe, "when do you expect to be blown up?"

"Aw. begorra, that's all done with," said he, philosophically, "I berrid her last week."

"Buried what, who?"

"Th' ould ooman. Ye weren't at the wake?"

The reporter stated that he now learned for the first time of the decease of the old gentleman's partner and proceeded to ask whether he expected any damage to his house from the big blast across the river.

"On, divil a hare," between whits at the pipe.

"The — a cornish it'll knock off anyway."

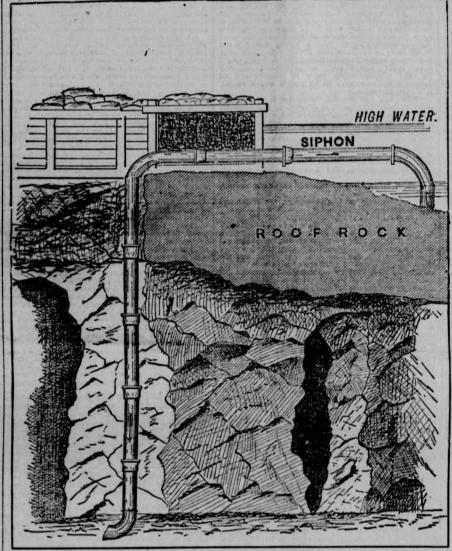
"Looking about for the invisible cornices alluded to, the reporter saw a twinkling of fun in the old fellow's eye. "Well, I don't know," he ventured; "you will get a hard shake here."

"If wouldn't doubt it. Begorra, everybody shakes me since I got bouncel off the big nines."

eye. "Woll, I don't know," he ventured; "you will get a hard shake here."
"I wouldn't doubt it. Begorra, everybody shakes me since I got bounced oif the big pipes."
"You're right on the line of the rest and the rock is sold. It's guess, you know."
"Nice, is It' I don't care a traneen what it is iv it keeps its distance av me."

HELL GATE.

No. 1-Section of the Main Shaft Showing the Syphon in Position.



No. 2-Bombproof Shelter for the Exploding Batteries.



and but a little distance from the river in Ninety-second street stands the lotty brick building used for a brewery of lager beer. Besides presenting a broad side six stories high to the mine, the structure has three stories under ground filled with barrels of beer. The upper story of the wing running parallel with the river is used as an ica house. In winter time ice is stored here in huge blocks until the piace is filled, and then water is poured into the chinks until the mass freezes into one solid block of ice, 200 feet long, 75 feet wide and 20 feet thick. During the summer months this, of course, melts pretty freely and becomes much reduced in size. The block now remaining in the room weighs about 5,000 tons, and it has melted away so that a space of four or five leet intervenes between it and the walls of the building all around. The proprietor is very much excited over the proposed blast, which he thinks may cause such a concussion of air as will shake the wails of his building; and should the immense mass of lee described be given even a sight impetus, there is no doubt that it would slide across the floor and tearing through the walls of the building, carry destruction in its path like a minature avalanche.

Thinking that the inmates of the House of the Good

the floor and tearing through the walls of the building, carry destruction in its path like a miniature avalanche.

Thinking that the lumates of the House of the Good Shepherd, at the foot of Ninetieth street, built on a rock nearly opposite Hallett's Point, might naturally feel alarmed, it was visited by the reporter, who saw the venerable Rev. Mother Magdalen. She said she feared no danger, being assured by General Newton, who called there last June, that she and her charge might rest in perfect peace of mind. The General told her that beyond the throwing up of a volume of water, with small fragments of rock, nothing would be seen, and that the vibration would be sarely perseptible. Her only cause of anything in the shape of fear was about that portion of the building known as St. Joseph's class, occupied by the junior delinquents, and which was found to be erected on a cleft in the rock. Except for that all felt perfectly secure.

Passing seroes the avenue to St. Joseph's (German) Orphan Asylum, the reverend Mother stated that they, too, felt no anxiety; indeed, so little loar had they that in time of recreation some of the Sisters would indulge in jokes about the matter, one saying she would ascend to the roof as the most secure place, and another descend to the ceilar, so that in the event of the fail of the building she would asve them the trouble of burial. As a measure of precaution, however, she had decided on removing all the children into the enclosure or yard. Mr. Longuirest, superintendent of the Hariem boats, asked I. Brown, proprietor of the restaurant at the Ninety-third street lerry, to find him a suitable place for debarking passengers in the neighborhood on that day. He was given a landing close to the forry, and intends putting on two boats. This point commands one of the finest views to be found, and Brown will avail himself of the opportunity by having reserved seats on his dock and elsewhere for his patrons and friends. A patice force of 100 men will be desiated for that neighborhood one

be apprehended from the explosion he replied most emphatically in the negative. Since his return he says he has gone down into the tunnels and carefully examined every detail, and he is fully satisfied that the work will be a great success. He was much impressed with the evidences of extreme carefulness on every hand, and so confident does he teel that the shock will not create any damage that he has not removed even the most frugile furniture from his house, although it is much closer to the mine than any other. When questioned as to whether the blast would produce anything in the way of an exhibition for the curious M. Mailleiert deciared that it would doubtless be a grand and impressive sight. He thinks that from the centre of the cavern a shaft of water and broken rocks will shoot up into the air a neight of 125 feet or more. This mass, however, he believes, will fall back into its place without damaging anything Questioned about the effect of the explosion on the coller dam which rests upon the reef to be demolished the gentleman said its fragments would be thrown a considerable distance, but probably in an upward direction so as to hart nothing. The reporter asked M. Mailiciert whether he would remain in his house when the blast was exploded, and he replied that he was not alraid to do so but it was understood that the government officials would not permit any one, indeeds or out, within the cordon of military and police on that day.

Aff KNGINERER'S FEATS.

Mr. W. H. Nanne, late superintendent of the Costa

on that day.

AN ENGINEER'S PEARS.

Mr. W. H. Nanne, late supernatement of the Costa
Rica Railway, who is living in this city at present,

Mr. W. H. Name, late superntendent of the Costa Rica Railway, who is living in this city at present, said:—

"I don't think it possible for any one to even approximately estimate the force and extent of a shock from the explosion of a mine of such imagnitude, for it has never been tried. The blowing up of Blossom Rock, in San Francisco bay, is no more to be compared to it than a fire cracker to a bomb; 45,000 pounds of giant powder were used on it; at Hailett's Pornt about 45,000 pounds of an explosive ten traces as powerful is distributed through the 3,650 drill holes."

"You seem to think, then, sir, that the experiment will be a dangerous one?"

"That I would not like to say, but I certainly shall take care not to be in any tail house up town when the mine is sprung."

"Then you think it dangerous?"

"Weil"—hesitating for a moment—"I don't want to act as an alarmist, but, to speak candidly, I do!"

"You anticipate a severe shock?"

See here! (describing a pian on an envelope with a jencil), "this is hisliett's Point, which is simply the outerough Astoria, under and across the river, and under a section of upper New York. In the heart of this reef, upon which all Astoria and a large section of two wards in New York is founded, it is proposed to simulate an earthquake. Do you know the consequences of any sadden disturbance of the foundations of tail houses, however slight that disturbance really may be?"

"Of course."

be?"
"Of course."
"Well, fit your knowledge to my theory and reflect
on it. We are asked to believe that a quarter of a mile
of earth, which has been converted into a colossal battery charged with the most powerful explosives known,
will crumble into fragments without a convuision. Is
such a theory a natural one? Ask any one who has

ever worked in mines, where even powder produces a severe concussion. Or let me give you a hint from my own experiences.

"White bridging the Matina River, on the Atlantic section of the Costa Rica Rairoad, a lavorite method of fishing with us was the explosion of eight ounce cartridges of dynamic in the river. The concussion resulting from the firing of three of these cartridges tied together was sufficient to stun all the fish within an area of a quarter of a mile square and send them floating helplessly down stream into our nets. My tent was pitched on a lead of rock from the edge of which the cartridges were usually thrown into the river, and every explosion was iollowed by a severe shook. Each time a charge was exploded, too, a shower of water and small stones were thrown up from the river bed, which was in that place,

AT LEAST TWELVE PERT READY THE SURPACE."

"Do you contemplate any casualty in the vicinity of the explosion itself, Mr. Narn?"

"None, unless people in boats are incautious enough to venture near enough to the mine to be struck by the fragments which are certain to be thrown up. The danger, in my mind, exists in the convision certain to be communicated to the reef. The theory of a tidal wave is preposterous. There will, of course, be an upleaval of water over the mine, from which feertain swell will arise, but it will subside as quickly as it originated."

"Bo you think the explosion will be a success?"
"It cannot fail to be; why, you could almost blow a mountain down with the same amount and quality of naterial. It will be the end of the rock—and a good namy houses which stand on the lead, too. You may be hound if I owner a house in Astoria I would begin o move out to-day."

many bouses which stand on the lead, too. You may be bound if I owner a house in Astoria I would begin to move out to-day."

Loss of LIPE on the work.

The thing that must strike all who are familiar with the magnitude of the undertaking is the comparatively small searchee of human life. Up to the present but six lives were lost, and all through carelessness—two by entering before a blast went off, one by a rock falling through the roof of a shed which he was frequently forbidden to enter, and the three others on the drill scow lately. The watchful care and supervision of General Newton and his assistants had much to do with this, yet many there say that the public would have felt very uncasy had they but known the gross carelessness or recklessness on the part of some of the employes, and the manner in which they handled the most dangerous explosives. It was but a few days ago that a cartridge fell from the hands of one of the men white charging. Not long since a sloop, having a supply of explosives on board, was anchored at night in Hallet's Cove, between the Astoria ferry and the steamboat landing at Ravenswood. In the morning as two men in a rowboat were towing her to the works she was forced by the current into the lerry dock, where she got stuck, and a tig had to be signalled to take her up to the works. The passengers on the various boats may notice on Little Mill Rock a small wooden shed built on the rock, in shape like a tent, and innocently covered with an advertisement of the "Rising Sun Stove Poish;" yet inside that simple and apparently harmless structure is stored, issuncdiately over the water, a quantity of introglycerine. The boweprit of a vessel coming in contact with it might result in an experience of its explosive or non-explosive qualities.

The lettering of the advertisement was at one time used as built's-eyes for a rifle until the marksman was informed of its contents.

No more striking or picturesque scene can be tound

Experience of its explosive or non-explosive qualities. The lettering of the advertisement was at one time used as bull's-eyes for a rifle until the marksman was informed of its contents.

A PICTURESQUE SCENE.

No more striking or picturesque scene can be found than that presented by the works upon a fair day. Down within the gloomy portais of the tunnel one catches glimpses of dark, gnome-like figures moving busily to and fro by the flickering light emitted from tiny lamps attached to their heads, like the traditional stars upon the brows of fairies. Flashing through the darkness now and then comes a gleam reflected from one of the tin cartridge cases being disposed in the rock, and which, by some curious alchemy of the lamps, seem turned into a bar of burnished gold. Gazing thus one almost believes he is looking upon a scene from Wagner's famous trillegy, and that the figures below are those of the "Nibelingon" heaping up their gold beneath the bed of the Rhine. The illusion is houghtened when the spectator raises his eyes to the blue river flowing above, and turning toward where Big Mill Rock promity rises above the water he almost expects to see the nymphs gracefully reclains upon its verdant slopes and mecking the dwarts below. The clouds above are reflected on the bosom of the sparkling river. Saling to and fro over the gloomy depths pleasure yachts, with glistening white sails, cleave their way and ill the air with music from the bands upon their decks, mighty Sound steamboats, with the flags of lifty nations fluttering from their spars, noble ships, and grimy, bustling, shrieking little tugboats move by in ancies spanorama. Here and there on the bright, and grimy, bustling, shrieking little tugboats move by in a nedless panorama. Here and there on the bright are long ridge of boiling loam projecting toward the middle of the river marks the line of the perilous "Gridiron." Beyond the brilliant blue bolt of river thus diversified rises in gentle slope ward's Island, its vivid vordire forming a beautiful c

ignting rod on the buildings is outlined as if drawn with a pencil.

A VISIT TO THE HEADINGS.

Descending into the cavern, at first the tunnels are bigh and of a good width. From the pillars project jagged masses of rock down which the water from the river above leaks in a constant stream. As one advances further the darkness becomes so dense as to seem palpable, the tunnels accommodating themselves to the dip of the reef above become steeper and steeper in their descent, until the frightened visitor imagines he as going perpendicularly down into the black gulf, in the glosm of which he can see now in the distance a tuny, starlike gleam of light where the mon are tolling. The foot slips constantly in a deposit of mid at the bottom of the tunnel, and plash! It is a pool of water up to the kinee! The extended hands touch on either side the walls of the rapidly narrowing tunnel, cold and slimy, and the head strikes the jagged masses of stone that project from the root, which becomes lower and lower as one advances into the gloomy deep. Jets of water, invisible in the darkness, fall through the crevices above and make their presence known by drenching one to the skin. Suddenly a sound like slience and reverberates through the hollow deep. The above and make their presence known by drouching one to the skin. Sudenly a sound like the distant roar of artillery breas the deathlike silence and reverberates through the hollow deep. The workmen are driving a ping back into a hole through which the water shot forty feet when the woosen stopper was removed. Twinkling in the heavy atmosphere, and retracted by the failing spray between the lights, the men seem miles away down in the bowels of the earth. The air is heavy with vapor and thick with the smoke of the lamps, which, finding no escape, rolis in a dun cloud along the roof, so that one breathes with difficulty. In another minute the lights which scened so far away are close at hand, and their gleam turns the spray from the dripping roof into diamonds, and causes the tricking walls te glitter in russet and silver, striped where exide of fron occurs with orilliant bands of carmine, while they throw the forms of the miners in grotesque shadows upon the pool below. Now a sullen roar indicates the passage everhead of some massive steamer whose revolving paddles cause the thirty-four feet of superincumbent water to tremble throughout its chirre depth. Far within the numerous boles periorsted in the rocky sides of the heading, which either elbow touches, the ends of the deadily cartridgus gleann family as the lights are borne to and fro. The men, standing knee deep in water and drenched to the skin, are about to fill a hole. One brawny follow, whose ivid, though massy, jaw implies that the wholesome sun never talls where he tolis, suizes a long pole and thrusts its entire length into the hole endwise and quickly pushed into its place at the inner extremity. Another, diled with a less powerful compound, follows at hand, it is thrust into the hole endwise and quickly pushed into its place at the inner extremity. Another, diled with a less powerful compound, follows the first, and so on until the shining end of the last cartridge shows that the hole is filled almost up to the face of the rock. Then a pine plug is

DELAY IN DELIVERING THE DYNAMITE. A reporter of the HERALD called at the office of the Atlantic Giant Powder Company, at the corner of Park place and Church street, last evening, and there saw Mr. Varney, the head of the firm. He was asked by the reporter what was the cause of the delay of the company in delivering dynamite to the Hallett Point works. Mr. Varney said that there was no delay whatever in the delivery more than was necessary in the course of ordinary proparation to deliver the dynamite. General Newson had ordered 20,000 pounds of dynamite on the 20th of July, and all of that had been delivered; but in delivering what been ordered since, on hat Saturday, there had been a little delay, as there was not cartridges enough sent to them, and they could not send the stuff until it was piaced in the carringes. The agreement, or contract, rea: that the dynamite should be delivered between August 15 and september 1, with two weeks of a margin on any probable delay that might occur from the government's propositions. Large quantities of the dynamite could not be kept at the manufactory in bulk with any great degree of safety. The factory was some fifty miles away, at Drakeaville, near Dover, N. J. General Newton came on Saturday and ordered 15,000 pounds more, and of this amount 2,318 pounds had already been delivered, and Mr. Varney said that 5,000 or 6,000 pounds additionat were being shipped yesterday to the Hallett's Point works, and there would, no doubt, be a delivery of that amount by this (Wednesday) morning. So far the delay had been merely from the lack of cartridges and was not the fault of any person in particular. Mr. Varney said that they could not keep great quantities of the dynamice on hand ahead of the supply for reasons which would suggest themselves to any intelligent person. the reporter what was the cause of the dolay

## CLEANING OUT THE SLUMS.

Captain Byrnes, of the Fitteenth precinct, last night raided the house No. 26 West Fourth street, kept by John Bernascotti, alias Tarabaldi, and arrested the proprietor and seven lemaies, all of whom were locked up in the Mercer street station house. The place has long been notorious as a vile bawdy house, but the proprietor has managed to keep clear of the police. In effecting the raid Captain Byrnes was obliged to resort to no little degree of strategy in order to get inside the house. The prisoners will be arraigned at court this morning. raided the bouse No. 26 West Fourth street, kept by

## WASHINGTON.

Trial of General Babcock for the Safe Burglary Conspiracy.

CHARACTER OF THE JURY EMPANELLED.

Republican Fears for the Result in Ohio.

FROM OUR REGULAR CORRESPONDENT.

WASHINGTON, Sept. 19, 1876.

THE SAFE BURGLARY CONSPIRACY-TRIAL OF GENERAL BABCOCK COMMENCED-A JURY WHICH IS LIKELY TO DISAGREE-MR. ALEX-ANDER ON THE CONSPIRACY AND EX-CHIEF WHITELEY ON THE TESTIMONY.

We have entered upon the second series of the murky plotting and counterplotting of detectives, outside law yers and witnesses which has marked all the phases of the safe burglary trial heretofore and the consequent indictment of General O. E. Babcock, the President's late private secretary. From the first the game been on one side or the other confusion and incredibility. Most admirably have they succeeded. It smounts almost to art and has all the outlines of adaptability to the construction at least of stage rescality and intricacy. The first part of the farce, for such it is, was to-day consummated in the selection of a so called jury. The governmen was handicapped by the provisions of law beyond which the presiding Judge, Humphreys, could not go in the allowance of but three challenges, while the defence were allowed four. At first counsel claimed that they were entitled to eight challenges each, but the Court ruled not. These were soon exhausted, and some, though not objectionable, yet certainly not the was sworn in and passed, if not in bad taste, would, ordinarily, at least, have put impartiality to the blush, Lewis, colored steward at the clubbouse where the conspirators in the safe burglary assembled on the night of April 23, 1874, of which conclusive ter timony has been taken before the Congressional com mittee. Next was John W. Freeman, colored, who has worked under General Babcock on the public grounds, and last was William Ferguson, who, in the stimation of unprejudiced lookers-on, was sure to hang the jury as he seemed anxious to get on it at all hazards for the sake of the revenue it brought.

Mr. Columbus Alexander, the person most interested in the trial, and who was most affected by the alleged conspiracy, was interviewed in regard to the jury. He is an old citizen of Washington, but says he does not know them and appeared very much dissatisfied with the different elements composing it. So far as their probable bias is concerned he apprehends even now that the jury will disagree and has almost made his mind up to it. He tried hard to keep colored men off, as he thinks they would not be likely to decide understandingly on the evidence. What he expects to prove in regard to General Babcock's guilt is that he was interested in breaking him down by destroying his credfbility during the investigations which were made by Congress into District affairs, in which Mr. Alexander and his friends were important and persistent witnesses against the then existing Board of Public Works, of which General Babcock was Super vising Engineer in the matter of measuring the improvements made about the public buildings and grounds. It appears that they striving to show false measurements on the part of General Babcock, and also that he was drawing money from the Treasury before the work was actually done

Mr. Alexander says :-- "We were tracing the corrupt payment of \$97,000 by a firm of contractors named DeGolyer & McClellan, and we followed up to ex-Governor Shepherd's office, where a partner of his received a large amount of the money. It was necessary then," he adds, "to strike me down, and hence they got up the sale burglary business to show the mittee what sort of a man I was, and an effort was made to break down the investigation, but I turned too quickly on them by going into the safe burglary matter, which the committee took up at once, there we beat them."

The most important witness will be Mr. H. H. C. Whitley, late Chief of the Treasury Department secret Service, who is charged with putting up the whole con. clear myself and want to tell the whole truth. I was employed to work it up. I was not to be benefited

ock's complicity is charged to have sisted principally in having caused ex-Solicitor Ban-field of the Freasury Department to telegraph to Whitley in effect the following:—

"B. wants to see you. Come over."

"Somerville, a New York lawyer, also on trial, prepared the depositions of Michael Hayes and of William Benton, alias Walter Brown, now in jail, to convict me," said Mr. Alexander, feelingly, as he turned over the pages of printed evidence, and pointed to their lengthy depositions in the case. One of the worst features of the present by-play is the activity of a Mr. A. B. Williams, a lawyer, who is supposed to have fixed up the jury in the Green trial and who is charged with manipulating juries for counsel. He was indicted as

up the jury in the Green trial and who is charged with manipulating juries for counsel. He was indicted as one of the conspirators, and was with Chief Detective Clarvoe and Major Richards, Superintendent of Police, on the night of the safe burglary, and, with ex-District Attorney Harrington, followed up the burglars to Columbus Alexander's house. The principal burglar's mame was Benton. Mr. Williams has been busy all day getting up a list of and looking after the jury.

District Attorney Wells, on being asked whether all the witnesses for the government were subponsed, and they were not. He expresses himself as being entirely satisfied with the jury, and tinninks, sill things considered, they have a very fair lot. He further announced his opinion of the trial by saying, "It will be a quick, strong trial on both sides." Mr. Whitley was later engaged with him privately in the preparation of questions which are to clicit his testimony in the case. The trial has created a great deal of excitement in high quarters, and its ramifications will be found to extend to some notable ex-collicials if not circumseribed by counsel or the flatting out of witnesses.

Attorney General Taft is understood to be busily engaged to night in giving his personal attention to the careful preparation of the safe burglary trial so as te see that the government will not in any way be at about no overlook anything which should properly be done by it to protect its interests and secure a full and lair trial by bringing out all the testimony which should be developed by it.

BEPUBLICAN FEARS OF THE BESULT IN OHIO—

REPUBLICAN PEARS OF THE RESULT IN OHIO A CRY FOR MORE MONEY-CORPORATIONS TO SEND THE REQUIRED BARREL

A great deal or solicitude is manifested here among republicans in regard to the campaign in Ohio. Among those who have watched its conduct there closest as well as what is done here there is apprehension fell that everything is not all right and that a weakness provails in the management of it in some important respects. In support of this it is recalled by those most conversant with the history of the thing that last year, when Ohio had become the most important State in the elections, there was some difficulty about providing for the campaign expenses, and until near election day the Chairman of the State Executive committee continued unreinforced with sufficient funds for the campaign. Considerable dissatisfaction with the National Executive Committee grew out of this, and ex-Assistant Secretary Cowan of the Interior Department, was charged with being the obsacle to Ohio's thrifty condition. When the charge was made directly to him he acknowledged that he did not think Ohio ought to have any more money, as she already had \$10,000, and when he was Chairman of the State Executive Committee, that was sufficient to run the campaign. Upon being reminded that a change had taken place in the time of her election and that Ohio had then the place of Pennsylvania as first in the lead, he for the lirst time argued differently and was persuaded with difficulty that his own State should have more money which was given and Ohio was barely carried by 7,000 majority ranging from 25,000 to 50,000, it is feared by the republicans that some such thing is how at work, and there is great danger the election will be abclose that the democrats may carry it by a surprise. A movement is to be made at once, to see that ample and energotic canvans and victory. But there are not wanting persons who oppose it because they are interested in the other States more largely than they are is Ohio. The National Executive Committee are blamed with doing more for Indiana than Ohio, and with haying signified to the leaders in the latter State that she is regarded as strong enough to help herself through, and she must. with the National Executive Committee grew out