An Experimental Plant at Dover Demonstrates Its Utility-Unaffected by Conditions of the Weather - Uses to Which the Motor May Be Applied.

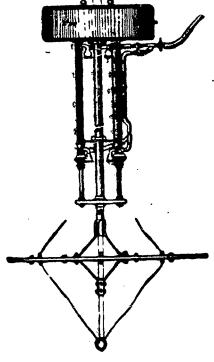
Engineers have long endeavored to devise a practical plan whereby the power of the action of waves and tides may be conserved and the energy either utilized immediately or accumulated and stored for future usage. Granted that an efficient apparatus can be deevised whereby even a tithe of the energy can be made available, it is obvious that the purposes to which it can be applied are almost without limit.

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We are indebted to Industries and Iron for a description of an ingenious apparatus, invented by B. Morley Fletcher of Westminster, which would appear to utilize ample power at a practically nominal cost. Brieff, the es-



FLETCHER'S WAVE POWER MOTOR.

sence of Mr. Fletcher's invention is the provision of a point of resistance which is fixed in relation to the up and down motion of the waves. This is attained by means of a submerged horizontal plane or disk, which is anchored to the sea bottom by powerful and efficient moorings, chains, bridles, etc., due provision being made for the rise and fall of tides. This piate is placed at water that it is entirely unaffected by geology teaches, were deposited under the action of the waves.

The motor itself consists of two parts. at right angles to and firmly secured to the upper surface of the plate alluded to, and rising a few feet above the surface of the water, and, second, a cylindrical or other shaped buoy which floats on the waves around the around the tube immediately below the existence. The members at present conbuoy. The motion of the barrel is there- sist of the men employed or to be emfore synchronous with the movement ployed in the caissons of the new East of the waves in a vertical, horizontal or angular position. In other words. the pump barrel moves up and down in the direction of the waves, and the fixed tube provides a piston rod—that is, instead of the piston rod moving in the barrel the barrel moves up and down

the pistou rod. The water pumped can, of course, be conducted by suitable means to the shore and there used or stored for hydranlic purposes, or it can be conducted on board lightships, piers, harbors, etc., and employed in generating mechanical force in connection, for instance, with the generation of electricity, for lighting, signaling and other purposes. The condition of the sea and weather in no way interferes with the effective working of the apparatus.

A demonstration with an experimental plant in Dover hasbor has given results which are regarded as fully warranting the further expenditure necessary for the construction and laying down of a much larger and more bowerful plant. The Dover plant when in full work is capable of developing about 8.7 indicated horsepower with a maximum stroke of 4 feet, the diametersof the floating buoy being 4 feet, and the size of the pump barrel only being limited by the size of the buoy. A larger plant is now being constructed. This apparatus, which that, an inner tube 12 inches in diameter, is designed to develop 800 indicated horsepower when working at full stroke. When it is working at one-half stroke, the same pressure of 150 pounds per square inch in obtained.

Not the least ingenious portion of the design of the apparatus is the controlling gear, which is to be employed when the sea is rough. As a further precaution the buoy is so designed and placed as to be always from one half to twothirds immersed, so that beavy waves will pass completely over it without in any degree interfering with the efficient action of the pump or causing injury to other portions of the plant. Where necessary, the plant can be readily duplicated or triplicated, its low cost being an additional inducement.—Electrical Engineer.

A Mutual Telephone Line.

There is a telegraph and telephone line between Chicago and Milwankee that is a mutual concern. The patrons own the line and pay 5 cents a message. The line has paid for itself and the cost of operation and returns a dividend annually. The dividends are applied to the extension and improvement of the service. - Electrical Review.

Progress In Plumbing.

The annual report of the inspector of plumbing of Providence states that the defective jobs discovered in 1896 were 17 per cent of the whole number inspected. In 1895 the percentage was 24, and in 1894 it was 44. - American Machinist

LARGEST SEISMOSCOPE.

It Hange in the Washington Monumes

and Records the Slightest Vibration. The largest scismoscope in the world hangs through the center of gravity in that great obelisk which was erected at Washington in honor of our nation's first rulet.

This instrument consists of a copper wire 174 feet long which holds a plummet suspended from its lower extremity into a vessel of water. Two transits arranged at right angles to each other are focused upon the wire just above the planmet, and by means of these little telescopes the slightest vibration of this great mass of stone is indicated npon a graduated scale.

The axpansion of the monument's south face on a hot summer day sometimes shifts the apex northward a few hundredths of an Inch, and high winds frequently cause a slight variation from the normal position of the wire. Occasionally the plummet swings violently when the weather is caim and cool, its motion under such circumstances being ascribed to vibration of the earth itself.

The custodian of the monument takes a daily statement of the transits and prepares a mouthly chart of the same. which is filed in the war department. An examination of these records diacloses the interesting fact that no permanent change has been effected in the position of the monument, the plummet having always leaned toward its normal resting place when the causes of disturbance subsided .- Scientific American.

Frogs In Blocks of Stone.

The occurrence of living frogs and toads inclosed in blocks of rock or stone or in clay many feet below the surface of the ground has often been reported, but never substantiated, says Leisure Hour Dr. R. H. Traquair, keeper of the natural history collection in the Museum of Science and Art, Edinburgh, has examined this defusion among oth ers, and he puts all such reports down to want of power of accurate observation. A stone is being broken, a frog is seen hopping about close to the place, and forthwith the lively imagination of the quarryman persuades him that he has seen it actually come out of a cavity in the rock. Dean Buckland made experiments for the purpose of ascertaining how long frogs and toads could live shut up to cavities of stone and excluded from air and food, with the result that most of them were dead within a year and none survived more than two years. Yet frogs are alleged to have been found inclosed in rocks which, ward subjected to a pressure which has right, the frog stories are otterly incred-

Compressed Air Makers. The use of compressed air is now so established and so extensive that an ortube, and which has attached to it ganization entitled the Compressed Air a num'n barrel, which in its turn works Makers of America has now come into river bridge to connect New York and Brooklyn. A schedule of wages has been established, varying with the depth or pressure, as follows: From 55 to 70 feet depth, \$2.75 for 6 hours' work; from 70 to 80 feet depth, \$8 and 4 hours' work; 80 to 90 feet depth, \$3.25 and 2 hours' work: from 90 to 100 feet depth, \$8.50 and 1 bour and 20 minutes' work.-American Machinist.

Undeveloped Minds.

Experts say that mental dwarfs are much more common than physical ones. The brightest children are as liable as dull ones to have their mental growth stunted. The reasoning powers at 31 are perhaps the same as at the age of 14. At 80 the mental vacuum is plainly noticeable and becomes more and more marked. At 60 the man perhaps betrays signs of idiocy. Yet frequently these undeveloped minds grasp certain things with a readiness a broad minded period would fail to show. Medical science knows no remedy for this mental defect.

Happily, it is a rare complaint. No Prizes For Patents.

A bill is now pending in congress the purpose of which is to make it unlawful for patent solicitors to offer prizes to their clients for patents. An additional clause of the bill provides that the government shall refund fees paid on account of applications which are found to be anticipated by flevices already patented. As the search in the United States patent office is limited to the office files the effect of this second revision would practically be the refunding of fees for all rejected applications.—American Machinist.

American Brooms. American brooms are exported in large numbers to many countries. Our exportations of brooms to some countries have within recent years, owing to natural causes, decreased, but our aggregate exports are nevertheless now larger than ever and still increasing. We send brooms to Central America. South America and South Africa, to the United Kingdom and to France and Germany. - New York Sun.

Dissolving Iron.

Iron dissolves slowly in dilute nitric acid. If not diluted, this acid rapidly oxidizes it. Dilute sulphuric acid dissolves the metal easily, but if concentrated it has no action in the cold. whereas on heating to ebullition the iron is dissolved with evolution of sulphuric acid gas. It is also dissolved by hydrochloric acid or aqua regia. - Jewelers' Circular.

Aluminium and Vanadium. Vanadium is a good hardener of aluminium and can readily be alloyed with it, due to its presence in some of the bauxites that are native aluminium plies: "Yes and I shall love Mendelsores - Almainum, World.

THE MOTHER AND HER BOYS.

There are Fairfax and Fred and Arthur and Good boys, and remarkably ciever.

in studies and sports and games of all sorts, To excel institute noble endeavor. And when poring o'er books with studious

looks.

Desputing of help from a brother,

The clicut of all will not scripte to call

For aid from his bright liftle mother. In out of dear games every one of them claims

Her presence to strengthen and cheer them. For the lister their luck and the greater their pluck, They say, if their mother is near them,

With hearty good will and wonderful skill.
She champions one or the other.
And the boys of declare, with a satisfied air, There's no better playmate than mother.

She joins in their walks, and dalightful the Most exceed and sweet the communical The mother enjoys as she strolls with her

boys, So loving and loyal their union Their future careers, their hopes and their fears.
They would not reveal to another.

re confided to her, and the lade all aver The best of companions is mother. She shares in their games and in all of their

aims.
Their faults and their follies correcting That they may grow wise and secure the best prize,
True culture and courage reflecting.

case, Alas, betwist brother and brother, the soon sets them right, preventing a fight, For there's no better umpire than mother.

—Josephine Poliard in New York Ledger.

And if quarrels take place, as as times is the

A TROPICAL IDYL.

It is an hour after midday, and the tropical sun is beaming out relentlessly. although the air is tempered by a refreshing breeze. The flowers in the churchyard begin to look a little fatigued, and the roses, belietrope and geraniums, planted by loving hands, now far away, round the graves of those who have died in exile in this distant land, hang their heads and seem to be longing for a shower or at least for a passing cloud, but the grass is still green on the slope in front of the church, for the dry season has not yet fully set

in. The sugar canes in the field across the road wave their lung leaves in the breeze, and the woods bordering the ravine, which stretches away to the sea in the far distance, present a refreshing daughter. vista of dark green to the tired eye.

The little congregation of English people comes rustling out of the church, and there is a flutter of light draperies, a mingling of pretty colors and a ringe of ooft voices and gentle laughter. Over all come floating the strains of an organ from the church behind. Some one is March.

his family. They occupy two carriages. In the first goes his excellency, her ladyship and 'heir eldest daughter, a gray eyed, brown haired English maiden in her first season. The aid-de-camp prepares to follow, as usual, but the cheery voice of his excellency riugs out: "Debenham, will you come with us, as you are the greatest stranger? Colville, my care of Miss Spencer and the girls?"

And so the newly arrived private sec retary drives off seated beside the cldest daughter, while the aid-de-cama, who has been with her father as los younger children and their governoss. "Why does Mrs. Noble play the

Wedding March?' ' says some one. "Oh, today is the auniversary of her own marriage, I believe, and neither Major Noble nor she has yet arrived a

the stage of wishing to forget their wedding day," is the reply. And so the joyful strains peal forth

until another Sunday comes round. strange foreboding has come over him, who has remained poor and has beginn should be ousted for a stranger and a al dirge. Eketch, A way he was newcomer just because forsooth he is heir to a baronetcy and to a fortune.

It is evening in the cold weather, and the short tropical twilight is nearly suited in something likely to pushe the over, the sun having set on one side of the ravine half an hour ago, while the

As they round the corner past the go on, but presently discover that some turns to look for them. He approaches severance on the canary a part has to music. The amateur organist has been Record. holding a choir practice and is now playing on in the dark by herself. She plays a low, sweet voluntary, but pres-

ently breaks into the "Wedding March." As the aid-de-camp advances he suddenly descries two figures, close beside him, standing under the shadow of a spreading banyan tree near the church gate. They are the private secretary and the eldest daughter, and their backs are toward him. Before he has time to speak he hears a manly voice say. 'That is a good omen, is it not, my darling?" and a sweet, girlish treble resohn's 'Wedding March' all my life be-

sause it mems to bound up with you and with my happiness. Do you remember that first Sanday'— But the aid-de-camp has turned on his heet and is out of hearing by this time. He reports that the stragglers "are all right and coming on. They have only been listening to Mrs. Noble's playing."

The moon continues to shine and the waterfall to sparkle in her rays and to splash musically slown into its spoky ing with Mrs. Melleninis. bed, but to the aid-de-samp a black shadow of great darkness seems to have summons visited ideads in Lyons the latter spare of the week. roll of the falling water and the noise of the breeze among the files trees have a mournful, moaning sound.

It is noon on a brilliant day in Christmas week and consequently in the middle of the hot sesson. Outside the grass is beginning to look burnt up, and the Peter Lyman and his states Libble went roses and geraniums are too much axto Senera Falls to attend the funeral of shelf bassted from the heat to put forth any uncle, Michael Terguson, which occurred at more flowers, but the hardy begonia is last week. more nowers, but the narry begons is. Miss Gertrude Chaple is spending her vahave large bunches of pink blossoms on cation at her house in Chanango county. the tops of their tall, willowy stems, which wave back and forward in the breeze and exhale a delicious perfume, like that of bitter almonds. In one corper of the churchward a large frangingnia. ner of the churchyard a large frangipuni penty. tree bears waxy clusters of pale yellow flowers at the ends of its cactualike branches, while shining out among the foliage in the government bouse grounds opposite is a tall flumboyant likaca. tree, which, with its flame colored blossome covering the whole top of the leafless tree, looks like a veritable "burning bash."

Inside the church has been turned into a bower, everywhere palms and to a bower, everywhere paims and Master Gerge Reilly and his little states ferms and sweet smelling white flowers. Aman of Season Falls, spent last week at The bare, barnlike walls are completely the home of their grandperents. Mit sad hidden by a mass of greenery, the win- Mrs. Lyman, near the hospital. dow sills are filled with blosecous and the altar rails festooned with maiden bair and stephanotis, while the lower half of the east window is a perfect bank of ferns and flowers, above which with white clouds, and the tope of the week souting.

All is pleasant bustle and confusion within, for a great wedding is about so take place, and all the beauty and fashion of the island colony have been summoned to do honor to the governor's

The ladies are in the brightest and freshest of tollers, while varied uniforms help to enliven the scene.

Everywhere there is a hum of wibdued pleasant talk and of delightful

playing Mendelssohn's "Wedding The bridesmaids a rait the bride in the gine company is about to be stanted here."

March." Then the carriages drive up and the among the congregation arranging this place. The motor itself consists of two parts. orushed all the fossils contained in Then the carriages drive up and the among othe congregation—arranging interpretation. Then the carriages drive up and the among othe congregation disperses. The first to everything, showing guests to their himself generally say al and agreed le jou Monday. -dits the sid-de-camp. He has been at pleasant smile or a kind word for av y day at ap. m.

dear fellow, would you mind taking toe proceeds, the bishop joins the roung ring put on, the hymns sung and, the address delivered. Then comes a mo- and Lyons riders. ment of silence while the newly married pair still kneel at the altar rails, home. as she can remember, takes his place in and when one can distinctly hear that the second carriage beside the two champing of the horses in the carriages waiting outside and the sighing of the breese in the tops of the floa trees. Then as the young couple rise from their knees there break forth the joy-

ous strains of the "Wedding March." As they pass down the siste the bride looks up into the bridegroom aface, and be, stooping over her, musically sense. until of Sympuse standed the funeral of their thing which only the can bear. The while the little congregation melts aid de camp were the look and and sway. The musician and her husband the words, and with renewed sugray. follow, and the church is shut up and the plunges into the business of mer left to the care of the native gardien shaling the procession and eccerting the guests to their carriages, and through Only the aid-de-camp is unusually and that long and bear day no one are grave during the rest of the day, for a lang his bright pleasant face, and been ing his cheery voice could guess that and is seems just a little hard that he, cfor him the spin was darkened and the who has remained poor and has begun light of life and hope gone out, and that to grow gray in the service of his ex- to his ears Mendelssohn's "Wedding cellency, and for love of him and his, March's will forever sound like a function

A practical joke that was played of Charles Maurer of Eleventh and Calfull moon has risen on the other, throw- Last spring one of his causry birds was ing black shadows everywhere, turning busy with a nest of eggs, and Mr. Manthe waterfall to silver and lighting up the waterfall to silver and lighting up the waterfall to silver and lighting u bered up beside the cascade, have followed the river's bank to the limit of birdlets. The loke in some way leaked the government house grounds and are now returning by the high road. Maurer decided to let them remain and church two of the party linger behind. watch the result. After the aparrow They are the governor's eldest daughter got a little older it was noticed that and the private secretary. The others the capary would put them in a row and chirp to them, after which the are missing, and the aid-de-camp re- sparrows would try to imitate her. Pergently, walking on the grass by the sulted in three ugly sparrows that are roadside. He calls, but no one answers. beginning to sing, and it's a toss up at From the church comes the sound of to whom the joke is on. -Philadelphia acres.

ter, which is drawn off when obarged with perfume and fresh water substi-tuted. This keisps the flowers fresh for a long time, and their life is further prolonged by the use of a saline solution such as the tissues of the plants call for. such as the tissues of the plants call for. The charged water is then evaporated by the use of other. The process has proved successful with many flowers which previously refused to yield up ding invitations at resemble priorities their perfume morable the kilv of the Call and see these to the Call and see their perfume, motably the kily of the

HINGESAN VEHICE

What ther Friends to the fortunal Particles are Delag.

Savannah.

Miss Kate Reilly of Senson Fallule visus

Misses Little Lawler and Mayne Fitz-Patrick Barns of Apharn called on friends

in town Sunday. Johanie Burke is visiting friends in Au-

Miss Maggie Collins, who has been very ill with toutilitie is improving.

Miss Mary E. Really spent Sunday with

relatives at Seneca Falls. Miss Katie Ryan spent last week with rel atives and friends in Seneca Falls and

Miss Elis Hennewy of Einfra is visiting her county, Mrs. John Donavan. Willard was victorious in the ball peace played here between our sine and that o Seneca Falls on Saturday last.

· Victor.

A base ball teem has been organ and fiere and their first game was played at Memdon lest Saturday,

Six "fresh sie" children arrived in town may be seen the clear blue sky, fieel of last Saturday. They are to have a two

Miss Neitle Garney has been visiting Miss autish Toble for a few days. Miss Mary P. O'Nell is in Macedon' to visit a few weeks with her comein. Miss Lillian Servoss.

Misses Ella Naville and Mary Griffin re-grand to Rochastor on Friday of last week. The band concert on Saturday evening

was largely affended.
Miss Julia Proc of East Bloomheid vinited with frightly here last Sunday, Lima.

expectation.

The bishop is at the altar, the bride- a few plyanaut days here Miss Anna Sullivam of Bochester passed groum and his best man must the rails. A branch repair of the Ballele Pais Es

Modus Point.

Frank Poucher of Sodus died suddenly at work since before daylight and yet does his home on Friday of last week. The fu-not seem at all fatigued, but has a need was held from his late home on Head

A gold medal presented by Hoffman & Now the music strikes up, and pres. Robinson to the cycler who could ride from ently the bride appears, leaning on the Newark to Sodne Point in the shoutest thus arm of her father. The marriage ser by the way of Lyene, the distinct being too proceeds, the bishop joins the young. The best time, so far, was inside by Joseph couple's hands, the young are taken, the Hale, who make it in 1,544. The name is open until he 30 h last, to Bewark, Social

Frank Walsh is Cangerously, ill at his Mrs. J. Mabb is very ill at her home h

Macyville, Spenterport.

Patrick McNamana, an old and respect resident of this place, alled on Monday last aged 74 years, of its furthers roots place form St. John's church on Wadmeday amorning. Misses Margaret and Geetle McMaisare

Mrs. Lawsence O'Noth of Buffale was in town the past week.
Miss Manie Leonard teturned hame or laturday last alter un absesse of seyess recks in New York, New Jersey and Pills

Miss Mallie Brannan vialted friesde je Rochester the past week. Mrs. John Davidi of Bushausen Budger

Mrs. Peter Devild & dangerously ill.

Miss Margaret Kinney is spenting for regation in Charleste. Mrs. James Ryan of Rechester was town on Friday last. Miss Loretta Morgan is attending the Suters' Institute at Rochester.

The Juneral of Miss Sprak Mibleck was held Tuesday from St. John's plantes. Mrs. Ellen O'Helen of Lycon is stuting for mother. Mrs. John Malone. Miss Anna Malene and mephew lay o

Rochester, are visiting, relatives in terms Miss Annie Russell of Rockson is suited ing a week with her parents.

Anger James Dune & platting specifies at Senera Castle.

Miss Salle Hemmoney is speeding a few weeks at Pholos. The process for sather.

Mr. and Mrs. M. Kelsher arthropolicular ever the Wrival of South boy.

Miss - Miss. Children and Mrs. Done security of the Remon a convention at Genera.

Miss - Ratter Hefferda of Sylvatistic Schools. on her schmer vacation." Miss Ruth Harlow is visiting friends at

Genendalgus fake, the form of the St. Dominick's society will hold their and musi picale August zoth,

Record.

Performed.

A number from this vicinity attended like funeral of William Conkiling which was held at Conundations for extracting the performed fune of flowers has been devised by M.

J. Passy. He steeps the flowers in was remiss Mrs. Husley last weeks. Miss Mary Deryan and Mrs. Manerhan

> We have a select line of the wat JOHN A PARTY NAMED IN COLUMN

Thursday is to the state of the tell of suffering from his Industrial Control of the Control of

Miss Maggie Sheehan and Mes Cody of Mer York city are the guesta of Mes. Hes