## DISABTER IN LAONCHING A TURRET SHIP ON THE

 THAMES.The ironclad man-of-war and steam ram Independencia just built for the Brazilian government at Dadgeon's yard Blackwall, London, is now lying, to all appearance, a wreck on the foreshore close to Cabitt Town Pier, with the tide at high water washing over her decks, having met with a disaster in launching. The ship is 310 feet long and very broad, having a beam of 63 feet, and she is of 5,000 tuns barden, build or's measurement, which is equivalent to a displacement of 10,000 tuns when armed and afloat. She has two turrets on deck; the decks are of iron covered with wood, and the covered with wood, and the sides are cov ored with a belt of 12 inch armor plates to a depth of about 14 feet. The armor being nearly all fixed while the ship was on the stocks, the weight of the hull was little short of 6,000 tuns, and the operation of launch. ing was therefore felt to be one of considerable difficul ty Hydraulic rams were mond to rams were which went safely down the slips for about her own length, and then stuck fast. The rams and all manner of appliances were brought to bear, but failed to move the ship further; and when the tide fell she settled down with her stern in the bed of the river, about a third her length only having left the ways. Her position is a critical one, and the outer shell of her doable bottom has given way in the bilges. her as she remains fast on the ways, extracted from the lustrated London News.

## BURNISYING SURFACE COLORED PAPERS

Marbled and other papers which have color laid on one side have been hitherto burnished or glazed by rubbing with a polished flint or other stone, worked over the surface by hand. Many attempts have been made to substitute gla zing rolls and other appliances for the tedious procese, but no good result has ever been achieved. M. Alauzet, of Pa rie, exhibited at Vienna a machine for manipulating the burnishing stone, and thus economizing the cost without impairing the beauty of the imparted surface. This machine, which may be used for dyed and undyed paper, is double acting; the sheets of paper are represented by $e$, while $a$ shows the burnishing steel or stone guided and moved by the bar, $b d t$, and the rod, $g$, which is connected with the crank, $f$. The weights, $t$ and $l$, may be increased or diminished according to requirements.
We are indebted to Engineering for the engraving

## Lawn and Pleasure Grounds.

A writer in the American Farmer for Saptember reiterates, what we have often stated, that the love and taste for horticultural pursuits is rapidly growing in this country. He also states the generally known fact that, up to the present time; the great majority of thorough practical gardeners in the United States are foreigners, and even those, however well educated in that profession at home in their native land, have, under a different climate and other influences by which they are surrounded in this land of their adoption, to pass through another term of ap. prenticeship before they can make their services acceptably available; we speak here of thoroughly educated men in the profession, and not of that crowd of one-year pretenders by which the country is overrun. It has been often remarked that very few native born Americans take to horticulture a pake to horticulture as a profersion; and that when they do, it is usually to enter upon the higher or lighter branches,or follow it as a mercantile or money-making parsuit. Yet it is true beyond all dispute, that the love of horticulture is growing rapidly, as may be seen by the millions of fruit trees put out as orchards, and tens of millions of flowers used annually in the flower garden, together with the ornamental trees and shrubs which are sought after with avidity

The residences that formerly atood isolated on the plain are now seen nestling in groves of umbrageous trees, embracing the noblest and most desirable kinds to be found in all temperate climes; now this state of thinge is pleasing for all lovers of Nature to contemplate, and should not every laudable incentive be used to further its growth? As havng a tendency in that direction, we would remind those
situated in the Middle States that during the present month is a good easson to transplant evergreens, and this work is best performed soon after a good rain, or when the ground is mellow enough to admit of getting as many perfect roots up as possible, but by no means permitting the trees after being lifted to be long exposed to the action of the sun or drying winds; cloudy weatheris desirable for this work; and hould the ground to be planted be light and dry, give a good settling of the earth about the roots with water, finis


THE FRIGATE INDEPENDENCIA AFTER THE ATTEMPTED LAUNCH.

Herb Cultivation
The London Garden contains the following account of herb raising for commercial purposes, at Mitcham, England, place long celebrated for its herb fields, from which tbe Lon don herbalists derive their mint, sage, licorice, and similar herbs. Of these, as a rule, distillations are made by the growers, and they are disposed of in a semi refined condition, or the herbs themselves are brought into market as soon as they are harvested.

Chamomile.-To this several acres are devoted, the double flowered kind being preferred on account of the weight of the produce; but both single and double sorts are grown, In March, old and somewhat spent plantations are broken up and the plants divided into good rooted slips, which are planted in well prepared ground in rows $2 \frac{1}{2}$ feet apart, and 2 feet asunder in the rows. A common prac. tice, however, is to plant as thick again as this, and to thin out the plants afterwards to the distances just named. The plantations are intercropped with let. tuces in spring. As soon as the blooms begin to expand, they are fit for gath. ering, and from that time, as long as they yield suff. ciently to pay the flowers are gathered sereral times in a season by wom are either paid a regular day's wages, or a penny, or thereabouts, per pound for picking.
Lavender.-This is extensively cultivated at Mitcham, both farmers and cottagers bestowing special attention on it; and this district presents a lovely sight in the last fortnight of July, when the different fields of it are in full bloom, the air for miles around being loaded with its fragrance. La. vender is increased by means of rooted slips, planted out, in rows about 18 inches apart and half that distance asunder, in March or April. Sometimes the eets are planted as wide in the row as the drille are apart. For the first year the produce amounts to but little; and, therefore, parsley or lettuce is planted between the rows. As soon as the plants have grown sufficiently to become crowded, every alternate row, and also every alternate plant in the rows left, is liftedsay in spring-and transplanted into another field, so as to form a new plantation. Thus the plants stand 3 feet apart each way, or 3 feet one way and 18 inches the other. Cole. worts, lettuces, or other early and quickly matured crops, are raised among the lavender in the early part of the year; but, after June, all such catch crops are removed. The flow. ers are usually harvested in the first fortnight of August, and, as has been stated, are distilled at the farm on which they are grown.
Licorice.-This was once largely grown at Mitcham, but, although it is grown in considerable quantities, it is not now so extensively cultivated there as formerly, on account of the cost attending its culture. It entirely occupies the ground for three years, and during that time requires great attention in the way of cleaning, besides the ultimate cost of trenching out the roots, or, rather, underground stems. The ground, being deep, is heavily manured in autumn or winter, when it is trenched and laid up in ridges, in a rough state, till spring. It is then leveled, marked off in drills about 2 or 3 feet apart, and some 3 or 4 inches deep, and in these the sets are planted in March. The sets consist of finger length pieces of the old root stems, each containing an eye or two. During the first year the ground is usually inter. cropped, as is also the case in the earlier portion of the

## PAPER BURNISHING MACHINE.

plant talips, hyacinths, narciseus, crocus, and lily roots; sandy soil, made rich by well rotted cow manure, suits them best.

Wood the Most Costly Building Materlal
Four fires on the 11th and 14th of July, in Illinois, Wis consin, and Iowa, destroyed wooden buildings, which cost originally $\$ 350,000$, and an aggregate of $\$ 5,080,000$ propertr. These buildings cost about $\$ 70,000$ less than brick ones would have done. The wooden buildinge burnt at Chicago, July 14, first cost $\$ 150,000$, but carried with them property to the mount of $\$ 4,000,000$. The wooden buildings burnt in the great fire of 1871 , when the entire loss was $\$ 200,000,000$ is thus worth $\$ 2,000,000$, or one per cent of the whole. Wood
second year; but after the middle of the second year; but after the middle of the second summer, and throughout the whole of the third year, the licorice requires all the room. When the
stems are matured in the autumn of each year, they are cut over close to the ground; and if time can then be spared, the soil between the rows is forked over, some well decayed manure being occasionally worked into it at the same time. The lifting of the crop, which usually takes place in the end of the third season, is a difficult operaticn, involving much labor. A deep trench is cast out, lengthways, alongside the frst row, and by means of forks, pulling ropes being even ometimes employed, the root atems are extracted. In this號 the cessfully lifted. The roots may then be stored in eand or pits, like beets, carrots, or potatoes. Growers of licorice do
times sell it as it stands in the field, and the purchaser lifts it bimself.
Mint - Both spearmint and peppermint are largely grown at Mitcham, particularly the latter; indeed, this crop ranks second in importance only to lavender. It is first planted in rows 13 inches apart each way, and in the end of the next two seasons it is plowed in. The plantations are kept free from weeds during the summer by means of hoes; and about the end of the first week, or during the second week of Au gust, is the usual time for cutting mint for distillation. In the Fulham fields, and in other districts in which market gar dening is carried on, mint is largely grown for sale in a green tate. For this purpose the dampest piece of ground is se lected for its culture, if it is to be a permanent plantation but it will grow in almost any soil. It is planted in rows a foot apart, and the ground is intercropped the first year; bu afterwards it runs through the soil in such a way that it be comes a complete mass of undergrown stems and roots. It is cut and bunched for market as required, the greatest demand or it being during the pea season. It is also forced in large quantities. "I have seen a range of 43 light frames filled with mint alone. These beds are made up in December or January, when the ground they occupy is excavated to a depth of 20 inches, and filled in with fermenting manure packed 6 rmly . A few inches deep of soil are then added,and in this the mint roots are thickly planted. Linings of manure re alao placed round the frames, the sashes during thenigh and in cold days being also covered with it."
Poppies.-Of the white kind, several acres are grown. They are sown in rows in spring, some 20 or 24 inches apart and require no further care, beyond a little thinning and cleaning, till August, when their seeds ripen.
Sage.-This forms an important crop, which, under favora ble circumstances, is pretty remunerative; the stalks being cat over, bunched, and sent to market at once. New plantations are formed with rooted slips, obtained by dividing the old plants; they are inserted, late in spring, in rows 1 or 2 eet apart, and about a foot asunder in the row. During the he first season parsley or lettuce forms an inter-crop, which also occupies the ground during the earlier part of the succeeding ones. Except hoeing and cleaning, the plantations need no care so long as they continue in a thriving condition and when the lines get brozen, and blanks and sickly plants occur, the plantation is broken up. Both the reddish and green-leaved kinds are cultivated.
Squirting Cucumbers.-These are raised in frames, like vegetable marrows, and are planted out, about the end of May, in rows some 4 or 6 feet apart, and 4 feet asunder in herow. They flower and fruit at the same time, and the ruits are gathered before they are ripe, otherwise a mere ouch would burst them. The fruits are usually distilled by the growers.

## The Physical Fallure of the Hawallans.

Dr. Nathan Allen, in an interesting paper upon the deca dence of the Hawaiian race, makes the followidg observa tions: The census of 1872 returned the whnle number of the inhabitante, 56,897 -males 31,650 , and females 25,247
In 1820, when the missionaries first landed upon these slands, the population was estimated at from 150,000 to 200,000 , but may not have exceeded much the first mentioned number. We have, then, in a little overfifty years, a oss of full two thirds of the whole inhabitants.
The efforts of the mispionaries wereattended withremarka ble euccess. A government of the people has become firmly established, education is generally diffused among all classee, and family instruction has for a long time been established upon a sound basis. In fact, all the advantages of a Christian civiliza
is people.
But, notwithstanding these conditions, the population has sept steadily decreasing every year. Now, what can be the cause? It cannot be from any fault or change in the climate, which has always been represented to be remarkably pleasant and wholesome. It cannot be for the want of good government or forany outward conditions that are unfavorable to growth. It surely has not been for the want of food, as there has never been any complaint from this source; food has been provided in abundance, a variety in kind-cheap and bealthy. There certainly have been no wars, pestilence, arthquakes, famines, or calamitios of that kind to account or this change. It is true the small pox, the measles, and the leprosy have prevailed there at times, carrying off large numbers, but by no means enough to account for the change.
There is no evidence that there has been any extraordinary mortality on these islands, especially among children, but there is evidence that there has been a steady decrease in the number of births. The decay goes steadily on, and from all present indications it seems likely to continue, till, as a race they become extinct.
Dr. Allen believes that the great primary cause of this de generacy is not external to the body, but internal-affording strong evidence that the true law of propagation is based upon physical organization, and that external agents are only incidental conditions or secondary causes. The change of population going on at these islands affords a most fruitful theme for study.
N. O. says: "Your plan for clearing telegraph wires of kitetails, etc., by burning has at least one serious objection, and that is that wooden tenements prevail where kitetails destroying houges in burning them off, there is danger of Orleans, where he tried it several years ago. It is also a slow process, for rage, when wrapped tightly, do not burn quickly.'

In the seventeoth century faith in transmatation was on roken. Helvetius declares that he saw a stranger conver an inferior metal into gold, at the Hague, in 1666. Even discovery was made while endeavoring to find the philosopher's stone among the terra damnata of chemical operations. At last suspicion was generally aroused regarding he claims of the alchemists ; and in a report read by Geoffroy efore the Royal Academy of Sciences at Paris, on the 15th of April, 1722, the tricks were exposed by which impostors had practised on the credulity of the public.
From this document we learn that the ordinary way of producing the appearance of transmutation was to employ a crucible or melting pot with a double bottom, the exterior being of some infusible material and the interior of suitably colored wax. In the space between these gold or silver wa placed. Lead or quicksilver, the latter being preferred on count of its volatility, wes then introduced in to the vessel, gether with the powder of projection. Heat being ap lied, the wax and the base metals disappeared, and a button of gold remained at the bottom. Sometimes a true crucible was used, and the gold or silver introduced into the fused materials by means of a hollow wand or stirrer, the interior of which had been filled with the powder of the metal the production of which was desired. Lead, in which holes had been drilled and filled with gold and then closed up, was also employed; or a piece of gold was washed with mercury and then transmuted into pure gold by an acid.

Wher a part of the baser merted, ajels. or bars, consisting half of gold or silver and half of ron or some other metal, were prepared, the gold or silver being painted to resemble the other metal. The removal of this coating or transmutation was accomplished ky means of alcohol or some liquid that could dissolve the paint. A nail of this description was at one time preserved in the museum at Florence; and the knife that belonged to Queen Elizabeth which was half gold and half steel, was of the same nature. Such objects as coins, half gold and half silver, were at one time very common, and were distributed by alchemists a evidences of their power, in order to entrap the credulous.

## The Austro-Arctic Exploration

M. Sidoroff, says the Eastern $\stackrel{\text { Eudget, member of the Geo }}{ }$ raphical Society of St. Petersbargh, has addressed a repor the Rusbian Admiralty with regard to the Austrian Polar Expedition, of which nothing has been heard since August, 1872. M. Sidoroff says in his report that the Tegethoff was last seen by Count Wiltczek in a gulf near Cape Nassau, whose outlet was then being choked up with ice. Since that time various seamen coming from Novaya Zemlaya have reported that the quantity of drift ice in the Icy Sea had con siderably increased, and that in the summer of 1873 it was extraordinarily abundant. Formerly the ice on the coast of the above island only extended to a distance of five versts in the month of June, while in midsummer, 1873, the width of the icy zone a mounted to about 100 versts. M. Sidoroff believes that if Cape Nassau had been free of ice, the Tegethof would certainly have gone round the northeartern point of Novaya Zemlya, which is only a day's journey from Cape Nassau, and thus reached the Gulf of Yeniseisk with difficulty. It is therefore probable that the expedition is frozen up and in want of provisions and M. Sidoroff accordingly recommends the Russian government to send food, etc., by land to Cape Nassau, adding that he will contribute $\$ 500$
to the expenses of the undertaking. The Admiralty has approved of this proposal, and is nowtaking thenecessary stepe for carrylng it out.

## The Lake and Clity or Van.

The city of Van, on theextreme eastern border of Turkey in Asia, is a new station lately occupied by American misionaries. The Rev. Dr. Barnum writes home, to the New York Observer, an account of a journey lately made by himself and party from Harpoot, eastward over the Taurue mountains, a distance of 300 miles, to the city of Van. The author says:
Lake Van, along the shores of which we spent several days in going and returning, is a beautifal sheet of water, without any outlet, sixty or seventy miles in length, and perhaps twenty or thirty in breadth. It is irregalar in shape, and is surrounded by mountains, so that in traveling the whole length of the lake you obtain sectional views, which gíve one almost the impreseion of a series of three or four lakes, and remind one somewhat of Lake George and the Italian lakes.
The city of Van lies at the eastern end of the lake, and is surrounded by a wali and moat. Just back of the city is a castle which I has surmounted by the most picturesque scriptions in the cuneiform character, bat in the Armenian language. The city is eaid to have been founded by Semiramis,nearly 4,000 years ago; but I believe this distingaished queen is coming to be regarded by historians as a myth. At any rate the city is very ancient, whoever may have been
the founder. Stretching away from the city and the lake for several miles toward the mountains on the east are beantiful orchards and gardens, and here the majority of the people live. The Armenian popalation of Van and its surrounding ilages is very large.

To Restore Old Zinc White.-If kept for a long time inc white bocomes granular and gritty, and uselees for painting. It may be restored by ignition in an oarthen

At a recent meeting of the French Academy, M. Marey communicated an account of some new researches on human ocomotion. With his usual experimental skill he succeeds in recording the moverients of the legs, on a rotating blackened cylinder (in reduced form, by means of wheel work). Weber supposed that, in walking, the leg was displaced merely by the action of gravity, and performed a pendulum movement. This has been variously disproved (by Duchienne and others); and now M. Marey demonstrates that the movement of transport is uniform throughout nearly its whole duration; in rapid paoes it commences and terminates with short periods of variable velocity. This uniformity is due, in great part, to action of muscles of the leg, but two other elements have to be considered: 1, the angular movement of the leg about the pelvis, and 2, the horizontal translation of the pelvis itself, that is to say, of the point of suspension of the leg while it oscillates.

## A Monument to Liebig.

The pupils of Justus Liebig propose to erect a fitting monument to the memory of their master, and now appeal to the chemists of all nations to aid them in the effort to raise a sum sufficient for the purpose. It has been decided to erect one monument at Munich, where Liebig spent the later years of his life, and, if the fund subscribed shall suffice, to place another-perhaps a copy of the first-at Giessen,the scene of his earlier labors.
Subscriptions in this country may be sent to either of the undersigned, who will forward the sums contributed to the Central Committee at Berlin
Professor J. Lawrence Smith, Louisville, Ky., Professor E. N. Horsford, Cambridge, Mass., Professor Wolcott Gibbs, Cambridge, Mass., Professor C. A. Joy, Columbia College, East 49th street, N. Y.,or Professor C. F. Chandler,Columbia College, East 49th street, N. Y.

One Hundred and Twenty Years old
There are certain portions of Virginia which have long been celebrated for the healthfulness of climate and the longevity of the inhabitants. Here is the latest example
Mrs. Katie Shepp, living in the Massanutten Mountain, near Keezeltown, five miles east of Harrisonburg, Va., has, it is stated, now reached her one hundred and twentieth birthday. Mrs. Shepp was married in the year 1774, at the age of twenty. Her husband, who has been dead about sirty years, was in his twenty third year at the time of his marriage, and he was a wagoner in the war of the Revolution. Mrs. Shepp remembers many of the incidents then occurring in the vicinity. Her mind is clear, and she does the work of the family she lives with, as well as her own sewing, and has never used spectacles.

## A Russian International Exposition

A permanent International Exposition of machinery is to openat the Museam of the Imperial Polytechnic Society in St. Petersbarg, Russia, on the 15th of October next. The object of the exhibition is to promote the introduction and employment throughout the empire of new and improved tools and machinery, whether of domestic or foreign manufacture, in demonstrating their advantages through public experiments. The enterprize is also intended to establish closer relations between the Russian manufacturers and those of other countries. Full particulars may be obtained by addressing Colonel Sytenko, President of the Russian Imperial Polytechnic Society, 2 Rue Panteley Mouskaia, St. Petersburgh.

## Fishing by Means of Explosiven

A method of catching fish, employed for years by poach. ers in England, is to fill a large stone bottle with quicklime, then to pour in water enough to nearly fill the jar, and cork it up, securing the cork to the neck of the bottle by copper wire. The bottle ie thrown into the water, and the pressure, caused by the working of the lime, explodes the bottle and stuns the fish, which then float helplessly on the surface of the water.

Phenic Acid for the Prebervation of Wood.-It is edmitted that, if tar increases the durability of woods ex. pooed to alr and moisture, this property is owing to its phenic acid and its creosote. It is, then, rational to believe that, in replacing the sap of the trees with slightly phenic water, they are protected from rot. But phenic acid is insensibly driven from the wood under the influence of water. M. Boucherie considers that phenic acid can only be rendered useful by mixture with sulphate of copper, to defend stakes driven into the sea against the attacks of the teredo.

The British government is spending $\$ 50,000$ at Woolwich on a new 80 tun gun, which, when finished, is expected to beat the world. With a sixteen inch projectile, weighing 1,650 pounds, and a maximum charge of 300 pounds of pewder, if will pierce the best iron plates, twenty inches thick, at 500 yards, sixteen inch plates at 5,300 yards, and will pitch a sixteen inch shell into a ship or fortress at a distance of 10,300 yards. The steel block forming the inner tube was the larg. ost ever cast, weighing over twelve tans; while the trunnion duced at the arsenal.

Utilization of Waste Soap Lifes and Oily Liquors.Instead of separating the fatty matters from the water by with ealts of magnesia. Magneeian soaps are thus formed, containing 60 per cent of fatty matter, and which may be used in the manafacture of gas for lighting parposes. - M. ㅍ. Fohl.

Predatory Chickens.
One Max Adeler describes a novel method he adopted for ridding his garden of a neighbor's chickens. We copy the article from the London Garden, but we suspect it emanated from this side of the water, and we would not wonder if the Danbury Nevos man was its author. It certainly reads like him ; but no matter where it originated
He says: "We had a good deal of trouble last summer with Pitman's chickens; as fast as we planted anything in our little garden, those chickens of Pitman's would creep through the fence, scratch out the seed, fill up, and go home. When the radish bed had been ravished in this manner for the fifth tinne, we complained to Pitman. He was not disposed to interfere. 'Adeler,' he said, 'I tell you it does 'em good; and it does them beds good to be raked over by chickens. If I had radishes, give me çhickena to scratch around them and eat up the worms. Radishes that haven't been scratched ain't worth a cent.' Then we climbed over
the fence with the determination to take the law in our own hands. We procured half a peck of corn and two dozen small fish hooks. Fastening the hooks each to a grain of corn, we tied wire to each hook. Then we scattered the whole of the corn on the radish bed, and fixed the ends of the wires to the biggest sky rocket we could get. The rocket stood in a frame about 10 yards away from the hooks. That very morning Pitman's chickens came over, and instantly began to devour the corn. We were ready; and as soon as plied a match to the rocket. It is regarded as probable that no barnyard fowls that have existed since the days of Noah ever proceeded toward the azure vault of heaven with such rapidity as those did. A fizz, a few ejaculatory cackles, puff of smoke, and Pitman's roosters and chickens were wishing around the celestial constellations without their feathers, and in some doubt respecting the stability of earthly things. Pitman never knew what became of his fowls; but when we read in the paper next day that twenty lour underdone chickens, with fish hooks in their craws,had been rained down by a hurricane in New Jersey, we felt cer tain that that sky rocket had done its duty.

## Gas Light.-Average Pricos.

The following information, showing the average net price of gas throughout the United States, has been procured by the Washington, D. C., Gas Light Company :

| 1. Maine. . . . . . . . . $\$ 3.87$ | 20. Mississippi. ...... $\$ 5.25$ |
| :---: | :---: |
| 2. New Hampshire. . 3.96 | 21. Michigan.......... 3.43 |
| 3. Vermont. . . . . . . . 4.80 | 22. Wisconsin......... 3.87 |
| 4. Massachusetts . . . 3.86 | 23. Ohio .............. . 3.32 |
| 5. Rhode Island. .... 3.35 | 24. Indiana........... 3.54 |
| 6. Connecticut. . . . . . 4.03 | 25. Illinois............ . 3.87 |
| 7. New York. . . . . . . 3.88 | 26. Kentucky . . . . . . . . 3.92 |
| 8. New Jersey. ...... 3.80 | 27. Tennessee. . . . . . . 4.06 |
| 9. Pennsylvania..... 3.46 | 28. Minnesota. ......... 4.31 |
| 10. Delaware. . . . . . . . 3.95 | 29. Iowa. . . . . . . . . . . . 4.52 |
| 11. Maryland. . . . . . . 3.59 | 30. Missouri. .......... 3.95 |
| 12. Dist. of Columbia. 3.16 | 31. Arkansas......... . 5.00 |
| 13. Virginia.......... 3.89 | 32. Louisiana. . . . . . . . . 4.50 |
| 14. West Virginia. . . 3.11 | 33. Texas............. 5.75 |
| 15. North Carolina.... 6.67 | 34. Kansas............ 4.55 |
| 16. South Carolina. . . . 3.80 | 35. Colorado. . . . . . . . . 5.00 |
| 17. Georgia . . . . . . . . . 5.07 | 36. Utah............. . 4.00 |
| 18. Florida. . . . . . . . . . 8.00 | 37. Californis |
| 19. Alabama.......... 483 |  |
| Total average net price of g | the United |

## Proposed Statue to Daniel Webster.

Gordon W. Burnham, a weslthy resident of this city proposes to erect in the Central Park, at his own expense, bronze statue of Massachusetts' late statesman, Daniel Webster. Mr. Burnham has a special taste for bronzes, and his residence on Fifth Avenue contains probably the choicest collection in the country, The Central Park has already a handsome group (Eagles and Chamois) presented to it number of years ago by Mr. Burnham.
The Park Commissioners have, we understand, requested that a model of the statue be submitted to them before they will consent to set apart for it the conspicuous and appropri te site on the Mall, suggested by the donor. The form of a renowned and representative Americen statesman, whose fame belonge to this country, deserves, we think, at least as prominent a position as that of Sir Walter Scott. It is to be hoped that Mr. Burnham's generous offer will not be with drawn through any difference of opinion as to where in our everywhere bsautiful Park his gift is to be displayed. The people will appreciate it, and heartily thank him for it, no matter whether it be located (as it should be) on the Mall, o

## Rope Cordage.-Recently a very interesting experimen

 was made at Kirkaldy's Testing Works, Southwark street London, as to the relative strength of handspan yarn rope, machine yarn rope, and Russian yarn rope. Mr. Plimsoll, M. P., Captain Bedford Pim, M. P., and others attend ad the test, which lasted over three hours. There were nine pieces of rope, each 10 feet long, being three of each of the above classes. The ultimate atress or breaking strain of the Russian rope was $11,099 \mathrm{lbs}$. or 1,934 lbs. strength per fathom; machine rope, $11,527 \mathrm{lbs}$. or $2,155 \mathrm{lbs}$. per fathom; handspan rope, 18,279 lbs. or $3,026 \mathrm{lbs}$. per fathom. The ropes were all of 5 inches circumference, and every piece broke clear of the lasteninge. The prices paid per cwt. were: Rassian rope, $\$ 11 \cdot 75$; machine yarn rope, $\$ 11 \cdot 75$; hand spun yarn rope, $\$ 11 \cdot 00$ all described as best cordage and London manufacture. It will thus be seen that the handmade was cheaper by 75 centeper cwt., and broke at the testing atrength of 7,180 lbs. over Russian, and 6,752 lbs. over machine made pope.

[In equil
on,
Judge:
This sult fo brought for au alleged infringement of a patent for "Im
provement in



Improved Children's Carriage.
Jullus Sues, Loutsville. Ky.-A child's carriage is supported on fron wheels by curved slins or bars and strong lateral springs, firmly bolted to
 ot only an up and down motlon, but also s rocking motion, of the car tage is ootained, and the elastictty of the same tncreased. The hind part
of the body is supported by two additional curved springs, of swan-necked shape, which are Interposed between the usual elliptic supporting spring and the body. The front end of the spring is irmly attached directly t The rear part of the sprling is attached to the back of the body, near the trengthencd, and the constant upward arring of the springs arrested Improved Sleish.
John A. Selgitid and Chester B. Borden. Seneca Falls, N. Y.-The knees and the hubare cast in a single plece, and the hub itto on the beam as an
ordinary wagon wheel fits on an axle. Traces are attached permanently the knees and to the under side of the beam, so that thes permanentl dlly detached from the beams. The hubs are made about the length of or
 runners. The beams then become axles. The change
wheels and from wheels to runners is very readlly made.

Improved Stop VaIve.
Richard S. Glllespite, New York elty. - This invention is an tmprovemen upon doubleseated ralves, some of which are provided with a headed pla the princtple of a toggle jolnt. When a valve is forced down, a ptn atrike the bottom of the case and forces another pln up against the lower end of
the valve stem. As the valve stem moves further down, both plna are orced inward against the outer rollers, whlch force the middle roller out ward, forclng the faces of the valve against the valve seats. The roll
ers thus operate as a dou'le togrle folnt pressing outward in lines at right ers thus operate as a dou'le toggle foint, pressing outward in lines at right
angles with the valve stem. In raising oropening the valve, the firstmove ment of the valve stem removes the pressure of the pins from the roller the pressure of the rollers from the parts of the valve, and the pressure of the palve faces from the valve seats, so that the valve can be ralsed with

Improved Reading and Copying Stand.
Charles E. Wells, West Pawlet. Vt. The book to be exposed o
Charles E. Wells, West Pawlet. Vt.-The book to be exposed on the rack securely fastened thereto. after being placed on the projecting lage at the
 nns haring a lateral plece at thelr end with allding book fasteners. SIml lararms with upward extending fasteners are applied along the lower part ofthe rack. Theserods are swung forward as required by the thickness of he book, and the fasteners then applied to hold the leaves till they ar
 lacing in

Improved Carriage Wrench.
Henry Cutler, Ashland, Mass.-The adjusting handle conslists of two The eccentric is roverned in position, as it is revolved, by a plvot, wher It enters a hole in the stock head. The faws are levers, and the eccentric
operates on thetr upper ends, the fulcrums belng the plns. A spring be tween the Jaws keeps them spread apart ; but when the eccentric is turne d, he outer ends of the jaws are forced toward each other to gripe and hold the nut. With this wrench a nut may be removed and replaced withou
touching it with the ingers.
Improved Method of Retouching Photographic Negatives.
Claude L. Lambert. Paris, France.-A large negative, after having been properly exposed, developed, fixed, and fintshed, is covered on both side with a sheet of thin paper or other seml-transparent materlal capable of
retaining the coloring matter to be afterward employed. Whereverneces retaining the coloring matterto be afterward employed. Whereverneces-
sary, elther on the collodion side or on the reverse side, an Impalpablegal. sary, elther on the collodion ilde or on the reverse side, ance answering the
vanoplatic powder, or other finely pulverized substance and same purpose, Is applled with a stump. The eftects of light and shade may parted as will render any subsequent retouching of the posituve paper print
 ramewith a sheet of ordinary sensitized paper, prepared elt her with salts of silver or of chromlum, to obtain a perfect positlve. Should the lines of
thenegative be too sharp orwell deflined, they maybe softened in the posiIve proof by irst partally printing it in contact with the large negative, very thin glass between the negative and the paper.
Improved Seed Dropper.
Hermann Koeller, Camp Polnt, It1.-To two cross bars are attached runners and seed hoppers, io themlddleparts of which ls secured a tong ne.
A sllde recelves a rectprocating movement to drop the seed from the revolutlons of gear wheels, and may be adjusted to a longer or shorter stroke. To one small gear wheel is attached a wheel consisting of arms, the outer
ends of which are notched to recelve a chain, and to the lowersideof which is attached a ring to support the same. In neing the machine, in coming dropped last to the ground, after dropping the last hill before turning, for a mark. He then counts the links that lic crosswlse, and puts another spring ring in the link he wishes to begin to drop from, for a mark in startIng. Atter turning around, the langed chang wheel should be set so that
temachine will begtin to drop at the marked link. This will brlag the

Improved Combined Throttle and Governor Valve Allan Talbot, Richmond, Va.-This invention relates to novel means stantlychangling the speed of a steam engine without the employment of bilting beits or other mechanism

Improved Bath Tub.
Aso C. Brownell, Brooklyn, N. Y.-This tub irame is so constructed that the sheet metal llinng ca
of the body of the tub.

Improved Combined Check and Martingale.
Louls Barron, Woodstock, V .- The object of this invention is to provide a combined check and maritngale, or in other words a check retn
which, by an easy adjustment, is adapted to serve the purpose of a martln which, by an essy adjustment, is adapted to serve the purpose of a martin-
gale. It consist of a strap spitt into two other smaller straps, the single gale. It consists of a strap spilt into two other smaller straps, the single
strap fastening by means of a ring to the checkor water hook, and the two smaller straps passing through iseepers on the crown plece of the bridie connected by a silding loop on the face of the horse, and faste
aitesides of the bridle bit by means of detachable fastenings.

Improved Wheel.
Lewis F. Rogers, South Avon, N. Y.-The object of this invention is to provide a wheel for vehtcles of such an elastic constructlon as shall faclll-
tate the easy movement of vehtcles, and which shall at once be strong, light, and durable. It consists of a metallic hub having twoe be strong, threaded stems projecting radially from the same, to which are fastened small plates held to sald stems bya nut and washer, there belng between
the sald washer and plate au elastic pad. Sald plates are attached on each the sald washer and plate au elastic pad. Sald plates are attached on each
side of the stems to metallic spring spokes, and said spokes securely fasside of the stems to metallic spring apozes, and sald spokes securely fas-
tened to cllps that are riveted to a metallic felly. Said felly is preferably tened to cllps that are riveted to a metallic felly. Sald felly is preferably
made with a concave periphery, and between the felly and the tyre Is placed a rim of rubber or other elastlc substance.

Improved Portable Fence.
William C. Kay, Como, Miss.-This invention relates to that class of wooden fences which are portable. It consiffs of but two essentlally dif-
ferent parts, the rails and the improved cisnnection for the same, which latforent parts, the ralls and the improved cinnection for the same, which latter conslists of two symmetricsily formed sections, made of incilined stakes,
to which are attached strips of etuf varying in length from about three feet at the bottom to one foot at the top. Sald stakes cross each other at about elghteen Inches from the top, and are braced by a rall resting in the
fork formed thereby. Sald stripsare securely fastened at one end to the atake; and asthey incline toward the earth the stripg of one stakecross
those of the other, forming locks thereby into which the ralle are placed.

