ADDITIONAL IMPROVEMENT.

CRUSHING QUARTZ, &c.—James Hamilton, of New York City. Ori inally patented Jan. 3, 1854: I do not claim adjusting screws or weighted levers to act in connection with grinding surfaces, but by the use of these parts in combination with the pestle contained in the patent mentioned, I am enab ed to obtain the new and useful results of adapting the machine for grinding or crushing various sizes and characters of ores. at the same time that the machine is comparatively light and portable.

Therefore I claim as an improvement on the patent mentioned, of 3rd Jan. 1854, the combination of the weight levers, 12, and adjusting screws. 11, with the pestle, d, set and moving on the shaft, c, the whole constructed and operating in the manner and for the purposes substantially as specified.

RE-ISSUES.

ENDLESS CHAIN HORSE POWER—A. F. Wheeler, executor of W. C. Wheeler, deceased, and Alonzo Wheeler, of Albaup. N. Y. Originally patented July 8, 1841: What is claimed is the links, c, of the parallel endless chains which carry the traveling bed formed with cogs on their inner edge meshing into side pinions, k, on the driving shaft when the latter is arranged back of the forward end of the power to receive motion by the straight run of the cog links over the said pinions, as shown and described.

BLEACHING APPARATUS—C. T. Appleton, of Roxbury, Mass. Originally patented April 17, 1855: I claim the combination of one or more air-tight vats for receiving and containing the goods, an apparatus for exhausting the air therefrom, and the necessary vessels for containing the liquids used in the process of bleaching, whereby the various steps may be performed in a much shorter space of time than has heretofore been required, as set forth.

DESIGN.

WATER COOLERS—George Hodgetts, of New York City.

[NOTE—We are gratified at the result of the Office labors last week, and we hope the examiners will keep vigorously at their task until the arrearages in their departments are brought up. Since the first of last January, applications for patents have so increased that the Office has been unable to examine cases as fast as presented, hence some classes do not present that "posted-up" state at this time, which the Commissioner's exhibit showed when his encouraging and able Report was last made to Congress. With the new addition of examining force, we expect an increase of patents weekly issued, besides, in some cases, more careful examinations made, and better reference given in cases of rejection. ONE THIRD of all the patents in the above list were secured through the SCIENTIFIC AMERICAN Office.

Why there is no Rain in Peru.

In Peru South America, rain is unknown. The coast of Peru is within the region of perpetual south-east trade winds. Though the Peruvian shores are on the verge of the great South Sea boiler, yet it never rains there. The reason is plain. The southeast trade winds in the Atlantic ocean first strike the water on the coast of Africa. Traveling to the northwest, they blow obliquely across the ocean until they reach the coast of Brazil. By this time they are heavily laden with vapor, which they continue to bear along across the continent, depositing it as they go, and supplying with it the sources of the Rio de la Plata and the southern tributaries of the Amazon. Finally they reach the snow-capped Andes, and here is wrung from them the last particle of moisture that that very low temperature can extract.—Reaching the summit of that range, they now tumble down as cool and dry winds on the Pacific slopes beyond. Meeting with no evaporating surface, and with no temperature colder than that to which they were subjected to on the mountain tops, they reach the ocean before they become charged with fresh vapor, and before, therefore, they have any which the Peruvian climate can extract. Thus we see how the top of the Andes becomes the reservoir from which are supplied the rivers of Chili and Peru.—[Lieut. Maury's Geography of the Sea.

Triumphs of Railroads.

According to the Louisville *Journal*, that city is entirely run round by the recently constructed railroads through Ohio and Indiana. The *Journal* says:

"We know of no other city in all this vast Union that is just now suffering so much injury from the effects of the superior enterprise of other communities as Louisville. The construction of numerous rail ways in every direction, North, East, and West, while none have been built South, has had the effect to divert both travel and trade from her, and no effort worthy of respect has been made to counteract this tendency. Cincinnati has also been a sufferer from the injurious influences of the network of railways that have been spread out on the north between that city and the lakes. But her citizens have had the sagacity to perceive the evil, and to remedy it, propose to extend railroads to the South, which will give to Cincinnati a decided advantage in competing with Louisville for the trade in that direction."

The Zodiacal Light.

It is said, in scientific circles in Cambridge, that Lieut. Jones has discovered by observations on the zodiacal light, that the Earth has a ring like Saturn's.—[Ex.

Is this so?

Foreign Editorial Correspondence.—No. 1.

Paris Exhibition, &c.

PARIS, May 3, 1855.

While the political journals of Europe are busy in discussing the troubles, progress and prospects of the war in the Crimea, there is going on towards completion, in this city, a grand monument to the genius of the Empire.

Paris is richly ornamental in works of art, and with the souvenirs of illustrious men, but none of its attractions possess a tithe of the true greatness which will center in the Palace of Industry which is now nearly ready for the reception of articles of handicraft from every civilized nation of the world. The structure is not a mere shadow, intended only as a thing of to-day, on the contrary it is an enduring and beautiful edifice, of a cream-colored stone, and is most admirably located in the Champs Elysées on the left of the grand avenue that leads from the Place de Concorde to the Arch of Triumph—probably the theatre of the most fashionable display in the world. On every pleasant day this thoroughfare is thronged with the tasteful equipage of the wealthy and great, and here the Emperor Napoleon is usually to be seen in the plain habit of a citizen, mounted upon his favorite horse, attended by two of his aids. It was here that the late diabolical attempt was made upon his life by the Italian shoemaker, Pianari; an event which sent the blood of Paris up to boiling heat,—for it is a fact, which no intelligent person can ignore, that the Emperor is the most popular sovereign since the days of Napoleon the Great. The Emperor is really worth seeing on his afternoon excursion, not because he is the Sovereign of France, but because of his exquisite horsemanship, acknowledged the best in all Europe.

The location of the Palace of Industry is admirable, and illustrates the executive tact of the French in all such matters. It makes an American almost blush for the honor of his country whenever any comparison is attempted between the New York and Paris Exhibitions. It is an old saying that "comparisons are odious," and although I have never adopted this maxim without some restriction, yet for the present I find it most convenient and highly appropriate.

The truth is, this Exhibition has been wisely kept out of the hands of speculators, whose dirty assiduities never get above the clinking of dollars and cents. It is managed by energetic practical men, who are able to bring their experience to bear with effect upon every department. The executive head is Prince Jerome Bonaparte, a man not lacking altogether the business capabilities of the family.

The main building of the Palace of Industry contains about 50,000 square yards of space. Its front on the avenue has a magnificent entrance, surmounted with a very superb allegorical group, which illustrates France in the act of crowning Science and Industry.

A supplemental building, or Machine Arcade, is now nearly complete: it runs along the banks of the Seine some three-quarters of a mile, and will contain about 4000 square yards. It resembles an extensive railway station, and the view from one end to the other is uninterrupted and beautiful. In the center, workmen are now busily employed in planting upon solid foundations of masonry, ornamental standards which are to support the shafting for the machinery. This building will very soon be in readiness for its treasures, and also soon, will be occupied with the throbbing and clicking of every variety of useful machinery. This large arcade will be insufficient for the machinery, and in order to meet the demand for the required space, a large building, used formerly for amusing exhibitions, is being fitted for the receptacle of agricultural implements.

There are in the interior of the principal buildings, twelve stone stair cases of broad dimensions—they are kept entirely out of the interior square, which leaves a large open space in the center for the ready transmission of light through the glass roof to every part of the building. The effect produced by the articles placed upon exhibition in the main square will be grand and harmonious, as from the broad and spacious galleries the spectator will be enabled to grasp at one view an elegant picture of life and beauty. I visited the building a few days since in company with Maunsell B. Field, Esq., President of the American Board of Commissioners, and was shown the space allotted by the Imperial Commission to the United States, and I was struck with the extraordinary compliment paid to our country; the gorge began to rise within me, when I thought of the miserable show which will be made by our people, and of the very shabby manner in which the Government at Washington has treated, in this matter, our Revolutionary allies. At the time of the London Exhibition, the Administration then in power detailed a frigate for the transmission, at government expense, of all articles contributed by the States to the Exhibition. Commissioners were appointed to take charge of the contributions, and the result was, some seven hundred articles of American handicraft were sent to London. With one or two exceptions, we cut a sorry figure at that time; and what will you think when I inform you that there will be less than one hundred articles from the United States, and these principally from New York.

The space awarded to the United States is immediately in the center of the main building—the position chosen for the Emperor's throne during the inaugural ceremonies.

The Canadians are here to be represented by a greater number of contributions than the whole thirty-one States, and the Commissioners have at their disposal about $50,000 in cash. The space allotted to Canada is too dwarfish for their purpose, and as there is no longer any hope for a decent display from the States, a proposition has been broached to amalgamate the articles under the more comprehensive title of the "American Department." Very many foreigners do not know the political differences between North America and the United States—it is all the same to them. And we shall be able, in this way—by the aid of our Canada friends—to pull wool over the eyes of a great number of Europeans. If this desirable amalgamation can be carried into effect, Canada will have the *extreme satisfaction* of fitting out, at its own expense, the entire "American Department." Well done Canada! Not so far behind after all.

One feature of the United States Department cannot fail to be of vast interest, in a biological point of view. An enterprising citizen of Texas proposes to exhibit some specimens of dressed alligators' skins; these skins, taken together with the number of Commissioners from the United States, will form the nucleus for much philosophical reflection. Every State promises to be well represented; one State has already appointed ten Commissioners, and is expected to add at least ten more. The question is asked, "Gentlemen, what has your State to show in the Palace?" "Nothing," is the answer, "excepting its Commissioners." The Imperial Commission, anticipating so much annoyance from so many officials, wisely determined not to admit but one from each State—making an exception in favor of New York, by admitting two, Messrs. Fleischman and Wales.

While in London, a few days since, I was informed by our Minister, Mr. Buchanan, that the New York Exhibition had neglected to return to England the collection of armor and other ancient specimens of war accoutrements, contributed by Great Britain. These relics of barbarity were taken from the Tower of London, and are regarded with great veneration by the English people. I wonder if the "New York Association for the Exhibition of the Industry of all Nations" mean to keep these relics? if not, why do they not return them promptly to their rightful owners? I understand that the English Government have been obliged to take the matter in hand.

Before leaving London, I noticed in the *Times* a very lengthy advertisement under the caption of the "Smith Testimonial Fund." It seems that not long since an entire fleet of screw propellers, larger than ever before left a British port, departed from Spithead, and this event suggested the question, "to whom is England indebted for the introduction of screw propulsion, which has enabled her to send forth the most powerful fleet the world ever saw?" After a careful examination made by a provisional committee, it was decided that the credit was due to Francis Petit Smith, and an appeal in his behalf has resulted thus far in subscriptions from various persons of over $15,000, with a fair prospect of its increase. It is also expected that the Government will take the matter in hand, and bestow upon Mr. Smith a pension for his great service to the maritime interests of the Kingdom.

It will please you very much, I am sure, to notice the generous recognition of an inventor's claims by his countrymen. England, although the best cultivated country in the world, would be destitute of working muscle if bereft of the life which its ingenious men have infused into it. The English understand this better than any other people, hence the reward to Smith and other eminent inventors. S. H. W.

Fish Tasted Water.

The water in use at Trenton, N. J., from the water works, has now a disagreeable fishy taste and smell. Mr. Wurtz, State Chemist, has been examining some, which, after evaporation, left residuum dark in appearance, and like a flaky dust, containing much nitrogen, and showing the presence of animal matter. Further experiments will be made by a microscope, and by chemical analysis. Some think the taste arises from the presence of innumerable animalculæ, such as were found in the Cochituate water at Boston, or by an impregnation of mucus imparted by the small fish which are pumped up into the reservoir from the river and die in the pipes.

Glue for Plants.

It is reported that, in France, for the generality of flowers, and more especially for the most delicate specimens of the lily tribe, common glue, diluted with a sufficient portion of water, forms a richer manure than guano, or any other yet discovered; plants placed in sand, or the worst soils, display more beauty and vigor, when watered with this composition, than those grown in richest mold, and sprinkled with water.

To Restore Pork.

In warm weather, the brine on pork frequently becomes sour and the pork tainted. Boil the brine, skim it well, and pour it back on the meat boiling hot. This will restore it even when it is much injured.—[Genesee Farmer.

[Will this plan really accomplish the object? the taint of meat being caused by partial decomposition.

Correction.

In publishing the engraving of Wright's Cultivator Plow, May 19, it was inadvertently styled a Horse *Shoe* Cultivator Plow. It should have been called a Horse *Hoe* Cultivator Plow. It is a good invention, and we presume that no matter what its name is, it will find a very general introduction.

Mineral Razor Strops in North Georgia.

The editor of the North Georgia *Times* has been presented by Col. A. D. Shackelford, of Gordon county, with a splendid hone for razors, which was taken from a quarry on his place, in that county. We doubt if there be any article or material of utility or luxury, from cotton and rice up to whetstones, that may not be found in her limits. Here we have, indeed, razor strops of nature's workmanship, ready for use, turned up in in the mineral regions of Georgia.—[Sav. Georgian.

A strong solution of alum with some whiskey mixed in it, is said to be a most excellent remedy for the galled shoulders of horses. Apply it three times a day until the wound is healed.