SELLING ARTICLES AT FAIRS.

A correspondent directs our attention to the custom which has prevailed of late years at agricultural fairs, of prohibiting persons from selling articles on the exhibition grounds. He contends that this is a most unwise policy on the part of the managers of such shows, as well as an injury to many exhibitors. In this opinion we heartily agree with him. We believe it is for the mutual advantage of all persons concerned that a free exchange and sale of commodities on exhibition be permitted. The very idea conveyed by the term *fair* is a place where buyers and sellers meet for the purposes of trade. Much good may result from the permission of sales at fairs, while we cannot see what benefit can be secured by forbidding such exchanges. Our correspondent puts a case thus: "Suppose A, B and C, coming from a distant part of the country, have a yoke of oxen and a team of mules with which they wish to part, and suppose two other persons, from another part of the country, have cows or machinery with which they wish to part, in order to buy oxen and mules. Here these parties meet, and have a good opportunity of making exchanges for their mutual benefit, but the laws of the fair forbid such action; hence, they have to separate, mutually aggrieved."

At agricultural fairs, there are very numerous opportunities for persons purchasing articles or animals, and of selecting from a very great variety; so that the supposition is, they are more likely to get suited with what they want than at private sales. As a remedy for the evil complained of by our correspondent, we suggest that a new feature be engrafted on every mechanical and agricultural fair, namely, that one day or more at the conclusion of such exhibitions be devoted exclusively for the public sale and delivery of articles; not intending by this arrangement to forbid previous private bargains, as usual, between parties. The directors of such fairs cannot expect exhibitors to come from a distance unless they are allowed to sell, if it were for no other purpose than to provide means to pay their expenses. The permission of free sales at all mechanical and agricultural fairs is beneficial to all classes, and injurious to none. We therefore hope that wherever sales have been prohibited at fairs, such restrictions will hereafter be removed, and that every person present will be permitted to sell, buy or examine articles—all to be conducted "in decency and in order."

A SUBMARINE LANTERN TESTED.

The Norfolk (Va.) *Day Book* records an interesting trial of Gould & Lamb's submarine lantern, which came off in presence of a Board of Examiners, appointed by the Navy Department. on Thursday, the 14th inst., at Portsmouth navy-yard. It says:—"The lantern was lowered to a depth of 16 feet in a reservoir of water inside the yard, when it continued to burn for half an hour. The day being oppressively warm, and the Board of Examiners and inventors exposed to the rays of the burning sun, further experiments were postponed until 9 o'clock at night, when a second trial was made from a barge at the foot of the commodore's wharf. The lantern was first lowered down to the bottom of the river, then separate tests made as to the exact distance rays of light could be seen from the surface. Also, the distance light could be thrown so as to distinguish accurately distinct objects. An oar, lowered to the depth of six feet from the lantern, the lantern being sunk four feet, was so clearly seen that the grain of the wood was distinctly visible. The rays of the light were visible upon the surface of the river when the lantern was sunk to the depth of 12 feet. These experiments were made in thick, muddy water, and, except that the Board were satisfied as to the principles involved, the lantern could have been kept burning under water for three hours. The same principles which govern at at a depth of 16 feet will prove equally successful at a depth of 90 or 130 feet. This lantern, in connection with a submarine armor, is destined to open up a new field of enterprise in submarine explorations for lost treasure."

PATENT FOR TURNING IRREGULAR FORMS.—As several correspondents have recently made inquiries as to the period when the extended patent of the ingenious Thomas Blanchard, of Boston, expires, we answer for all concerned, that it was extended for 14 years by special act of Congress, January 20, 1848, and will therefore expire in the first month of 1862.

RED LEAD AND GRAPHITE FOR IRON SHIPS.

MESSRS. EDITORS:—The writer has read with much interest the article on "Red Lead on Iron Ships" in your editorial columns of the 9th inst. The fact there stated of red lead being unable to protect ships' bottoms has long been known to me; also its inferiority, in every particular, to some other paints. But coming, as it does in this case, in an authentic and authoritative form, the matter is more likely to arrest attention and a worthless paint be discarded for some other that is reliable. I am positive that in graphite will be found those qualities and attributes which will effectually protect iron ships against corrosion. Being the purest of carbon, graphite is antiseptic and anti-corrosive; it is also anti-attritious in many respects. If one side of an iron ship be painted with graphite and the other with red lead or any paint not partaking of the character of graphite, the first will be found, after a voyage, to have been more preservative and more durable. Such have been the results even when verdigris was on one side and graphite on the other; and graphite, from its qualities, also keeps a clean bottom. After a comparative trial of graphite, red lead and other paints, Mr. Stevens, of Hoboken, N. J., found the former far superior to them all for preventing rust, for adhering to iron, and for facility in applying it. He discarded all other paints and used graphite for coating the iron steam battery which has been so long building at Hoboken for the United States government.

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PHOTOGRAPHY AND THE ARTS

We have another new application of photography to record. The Hythe (England) *Gazette* states that a series of interesting experiments have lately been made by Lieut. Walker, of the 79th Highland Regiment and of the School of Musketry Staff, in the application of photography to the art of musketry, with a view to obtain a true copy of the target-practice of any number of men at one or more targets. Formerly, the marks on the target were copied by hand (which was a tedious and troublesome process), in order to send the results to the superior officer, who was not present at the practice. Now, by means of the chemical influences of light, the impression made by each shot upon the target's surface is copied upon paper; and thus a true record is kept of the soldiers' practice for each day, so that no false return can ever be made.

SIXTY-FOUR POUNDER BURST.—A shocking accident, says the Washington *Intelligencer*, took place Thursday morning, 13th inst., at the navy-yard in that city. It was the bursting of a heavy ship's gun, which was undergoing trial on the battery-platform for the purpose of fixing her range, &c., under the general direction of Captain John A. Dahlgren. The gun was made at the West Point Foundry, N. Y., in 1850, and was passed as good, carrying all the usual marks of soundness. Previous to the above date it had been fired only 24 times, and followed on the practice-battery one of the 11 inch Dahlgrens. It was first fired soon after 10 o'clock, with the usual service charge of 16 pounds of powder and a 64 pound shot, and made a recoil several feet beyond the usual amount; when, being again fired, it burst with terrible effect, instantly killing two of the 16 men in attendance, and wounding eight or ten of the others, five of them so seriously that other deaths may be expected.

TAKING OBSERVATIONS BY BALLOONS.—Several of our daily city papers have, within a few days, published the suggestions of an English gentleman for taking observations by a balloon, attached to a wire rope, for allowing it to arise from the ground and for retaining it at any elevation, for the purpose of reconnoitering an opposing army. They have all presented the matter as something exceedingly new and ingenious. In our last issue, we described the very same method of balloon-surveying, and stated that it had been practiced more than 60 years ago by the French army of the old republic. Mr. John Wise has also made several ascents in the same manner, so that the novelty of the thing to us consists in our cotemporaries' presenting it as something novel.

Liquids are held together by cohesion, which varies in power, as is seen by the different sizes of drops of water, oil, syrups, or spirits, when thus measured out.

SUGGESTIONS TO INVENTORS.

MESSRS. EDITORS:—The SCIENTIFIC AMERICAN comes to our prairie home in its new dress, with something more than its usual welcome. It betokens a healthy condition from a just appreciation of its merits. It is a journal which we think should be more generally diffused among agriculturists, having, as it does, their interests and advancement at stake in common with other sciences and arts.

The inventor has already done much to assist the farmer in his efforts to lighten them and economize time and labor. Much still remains to be done. We shall soon, at our next State fair, have the experiment made which will decide the feasibility of plowing by steam, an event we think likely to be successfully accomplished by Fawkes.

The steam plow will fill a vacuum long felt by large farmers in the West; but there are others of moderate means who need another improvement in the plow line, which at present, in our opinion, opens a fine field for inventors. We allude to the gang plow, to be worked by oxen or horses. Jesse Frye has, perhaps, approached nearer to the desired implement, in his improved gang plow; but there are many objections to it to be overcome before it can be brought into general use.

We want a gang plow that will work well, of easy management, economising time and labor, and efficient in every respect. Such an implement will be a fortune to its inventor.

We want implements to economise time and labor in the harvest field, that will not give out under hard work in a "heated term," nor give our wives and daughters increased labor in the culinary department when the mercury stands, as it has the past week, *at and over* 100° *in the shade.* A machine that will not get the sulks, and leave the work in the harvest field, on account of some imaginary infraction of *rights* by the "boss," thus leaving us to hunt up other hands at such a busy time. Murray, Van Doren & Glover's reaper and stacker, and the binding apparatus recently illustrated in your journal, are steps in the right direction, but yet not complete. Cannot some ingenious inventor get up a *light, strong* machine that will cut and bind, or cut, bind and stack in a secure or speedy manner, ten to twenty acres of grain per day, and which the aforesaid machine will not cost the farmer a fortune to buy? One reason—the principle one—why farmers do not buy more agricultural machinery is on account of the high price usually asked for such description of manufacture. Labor is scarce and high in the West. Here we need implements that will enable the farmer, with his usual farm-hands, to put in, cultivate and harvest his crops without extra hiring.

We are willing to pay a fair price for such machine-help, and if we cannot do better, we must do as the Eastern States are doing—quit the raising of wheat, and turn our farms to grazing or dairy farms.

We cannot waste mental and physical power in the unceasing drudgeries of farm-work, and raise wheat at 25 cents per bushel, the price now given at Assumption station, on the Illinois Central Railroad.

The low prices are caused by speculation, but give us, Messrs. L'Inventeurs, some agricultural implements that will lessen our labor, economize our time, and give our brains a leisure hour to peruse scientific and agricultural papers, and we will defy speculators.

H. HINKLEY.

Prairie Cottage, Assumption, Ill.

DEATH OF A KING.

By the late news from Europe, we are informed that Oscar, King of Sweden, died at Stockholm on the 8th of this month, aged 60 years. This monarch was the son of Bernadotte, who was formerly one of Napoleon the Great's generals, who had risen from the ranks by his courage and abilities. He was solicited to become King of Sweden by the people of that country, their old line of kings, descended from the great Gustavus Adolphus, having become obsolete. Napoleon made many kings out of his generals and relations, but only Bernadotte, one of his old sergeants, kept his throne after the fall of the "great captain." King Oscar was a good sovereign; his views were liberal and just, and many excellent reforms in law and policy were carried out during his life, at his own earnest solicitations.