

New Inventions.

Making the Wool on Sheep to Grow, &c.

Stowel H. Dimick, of Ypsilanti, Mich., has discovered a new compound for coating sheep. It is well known to all wool growers that during the first eight weeks after sheep-shearing, the wool will be very thick near the skin of a sheep if it is in a healthy state. But the great transition which a sheep undergoes from being deprived of a heavy coat of wool, especially if damp and chilly weather comes on afterwards, has the effect of closing up the pores of the skin, thereby preventing the proper animal secretions, and causing the skin to become parched and dry, and thus frequently injure the health of the animal. In a large flock of sheep this entails a severe loss, especially as it may be considered that four weeks are lost to the grower, in the growth of wool after shearing, unless the weather is peculiarly favorable, which is seldom the case. The composition mentioned, for which Mr. Dimick has taken measures to secure a patent, is to be applied to sheep immediately after they are shorn, to prevent the evils mentioned, and at the same time protect the animal from both the scorching rays of the sun and the injurious effects of storms. At present we do not deem it prudent to tell what the compound is; we can only say that it is compounded of quite a number of substances, and the discoverer states that it is the result of a great number of experiments.

Improved Gold Amalgamator.

Robert H. Collyer, of New York City, has taken measures to secure a patent for a useful improvement in gold amalgamators. It consists in the employment of one or more cylinders which are fluted longitudinally in such a way—or are furnished with buckets of such a form that, as they rotate within concave amalgamating vessels, containing mercury, and receive a supply of water to cause a constant overflow, they will take up a quantity of the mercury on their rising side, and discharge it on their descending side. The crushed quartz, or gossan, is supplied to the amalgamating vessels by inclined planes in such ways, as to meet the mercury as it is discharged from the flutes or buckets, on the descending side of the cylinders, and is carried through the whole body of mercury in the amalgamating vessels by the flutes or buckets which agitate the mercury so as to bring it and the mineral in diffused contact, and thereby facilitate the amalgamation. The unmetallic matters are carried off with the overflow water.

Fire Arm Charger.

T. H. Peavy, of South Montville, Me., has taken measures to secure a patent for an instrument for charging fire-arms. This invention consists of a cylinder which contains several chambers arranged in a circle around its axis, and nearly corresponding in size with the bore of the barrel to be charged. And it is so confined between two plates and combined with a muzzle of the barrel, that all but one of the chambers can be charged with bullets and loose powder, and carried closed, until the charges are required for use, when the muzzle-piece may be placed on the barrel and one of the charge chambers brought into communication with it for the purpose of lodging the contents of the chamber into the barrel.

Water Wheel Gate.

Hartwell L. Turner, of Strykersville, Wyoming, N. Y., has made an improvement in constructing head gates for re-action water wheels, for which he has taken measures to secure a patent. The improvement consists in hanging the gate on a hinge at a certain part, and beveling it at another part, whereby, it is stated, it is more easily opened and closed than other head gates now in use.

Railroad Signals.

Alexander Gardener, of Byron, N. Y., has invented an improvement in railroad signals.—The nature of the invention consists in a day and night railroad signal to be placed at crossings, to give warning to travelers of the approach of a train of cars from either direction. It is so constructed and operated, that it is

made to revolve by the action of the locomotive itself, sometime before it arrives at the crossing. It thereby attracts the attention of passengers who may be travelling towards the crossing, and this makes them stop until the train has passed, after which the signal adjusts itself and is ready for the next train. Measures have been taken to secure a patent.

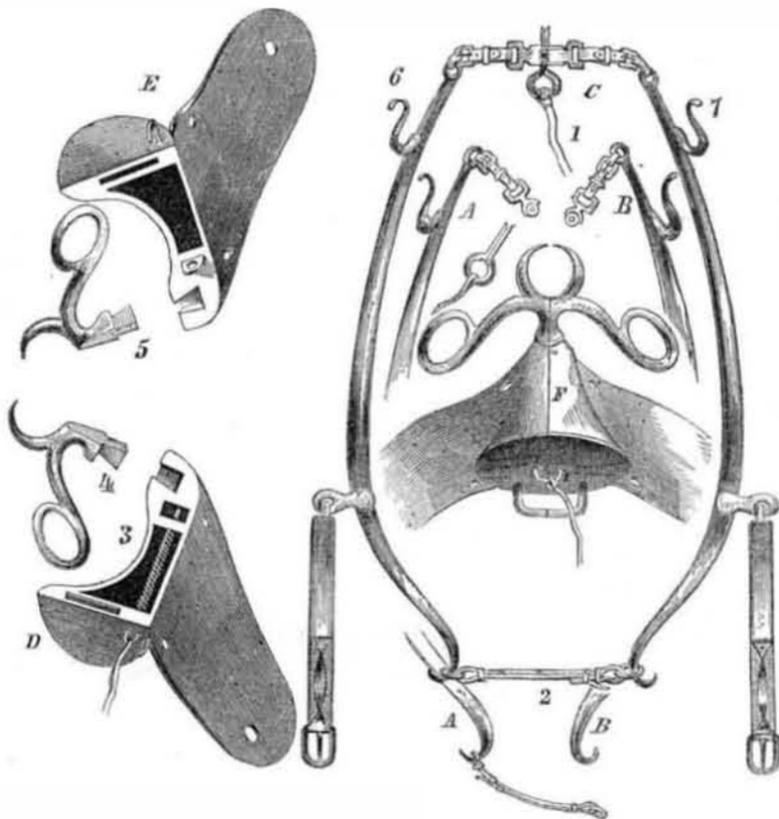
Cistern for Rain Water.

If all the rain which falls in the Northern States within a year should remain upon the surface of the earth, without sinking into it and running off, it would form an average depth of

water of about three feet,—in Southern States four feet.

There is not a farmer in our country but could supply himself with an abundance of good water, if he would build spacious cisterns and collect the rain from his barn and out-house roof therein. In many parts of our country, during dry seasons, the farmers have to drive their cattle to a great distance—to some constant river, or lake,—for water. By simply building good underground cisterns they can always have a plentiful supply of water at hand at their own doors.

YELLOTT'S LIFE-PRESERVING HARNESS.



The accompanying engravings represent a new kind of harness, for which a patent was granted to George Yellott, of Bel-Air, Md., June 15th, 1852. The object of this invention is to enable any person seated within the carriage, to detach the horse therefrom by merely pulling a cord, which strips him of his harness.

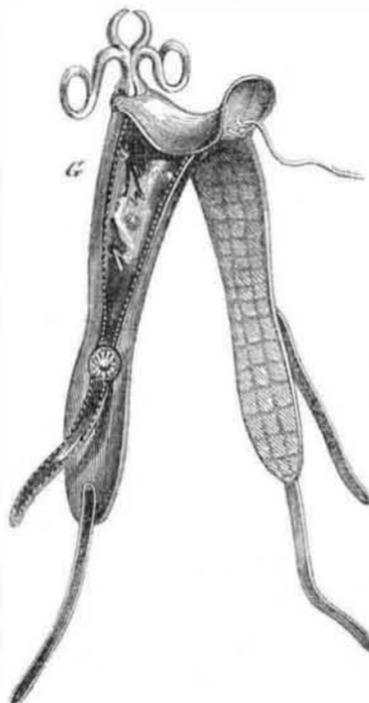
A and B represent the hames separated; C represents the hames as brought together when fastened over the collar. The hames are held together at the top by a spring bolt passing through a rule joint, as represented by 1, fig. C. At the bottom the hames are made to curve outwardly, and are held together by a strap with rings on the end thereof, which are passed over the curves before the hames are fastened at the top, as represented by 2, same figure.

The saddle tree is of malleable castings, and made in two sections, as represented by figures D and E. The two sections of the saddle-tree are held together by a bevelled pin attached to a spiral spring, and passing through a tongue fitted into a groove, as represented by 3, figure D. The two sections of the cantle are also held together by a pointed tongue and groove, each section having a section of the crupper loop attached thereto, which two sections of said crupper loop, when the tree is fastened together as aforesaid, form the whole loop. The saddle terrets, represented by 4 and 5, figures D and E, are fitted into sockets in the saddle-trees so as to be held firmly in their places, while the sections of the saddle-tree are fastened together, but drop out when they are apart. Figure F represents the saddle-tree when put together; figure G represents another view of the tree with the flaps attached; 6 and 7, figure C, represent the peculiar shape of the hame terrets.

A cord is attached to the spring bolt, 1, fig. C, and a small branch of the same cord being also attached to a loop at the end of the bevelled pin which holds together the two sections of the saddle-tree, said cord is carried back and fastened to the dash-board, or some other convenient part of the carriage. Upon pulling this cord the hames fly apart at the top

and drop loose at the bottom. The saddle tree at the same time comes apart and the horse goes off with nothing but his collar, bridle, and reins attached.

In order to prevent the cord from being accidentally pulled by the animal himself, a hollow tube of leather is attached to the breeching, and also strapped by the other end to the dash-board, of such length that when the traces are stretched, the tube is merely slack. The cord is passed through this tube with much more slack than the tube, and is retained therein by



a button on the end of said cord. If the tube is accidentally drawn tight by the animal throwing his tail over it, the cord having much more slack than the tube, is not affected thereby. This arrangement is so easily understood that it is thought unnecessary to represent it.

If a martingale is used it must be in two pieces. The prongs attached to the reins must be

fastened to the collar. The part attached to the girth must be fastened to the strap, represented by 2, figure C. It will be observed that the hames, A B, and the saddle-tree are placed for compactness within the hames of figure C, and that the hames, A B, are broken off and then joined below at the bottom of the figure.

It may be proper to say that the delay in bringing this invention fully before the public, has been caused by peculiar circumstances beyond the control of the patentee. One chief cause of this delay has been his great anxiety to have the invention perfect in all its details—so that it could be offered to the public as a practical working improvement. It had been supposed that a separate patent might be necessary to secure the benefit of these subsequent alterations as to matters of detail, but the Commissioner of Patents has decided that no such patent could be granted, as there had been no change of the principle embraced in the specifications of the original patent.

More information may be obtained by letters addressed to Samuel Hunt, No 167 Baltimore street, Baltimore, who has complete sets of harness for exhibition.

The Darien Expedition.

The great Expedition which was sent out to survey the Isthmus of Darien, for the purpose of constructing a ship canal, has turned out to be a disastrous failure, so far as the possibility of executing such a work is concerned. Surveying parties were sent out by the American, French and British governments, all working in unison, but moving on different lines. Lieut. Strain, of the American party, who at one time was supposed to be lost, has turned up alive, as many of those who knew him well predicted; but alas, many of his brave companions will return to their native land no more. It is said that Lieut. Strain went out with Col. Black's map, that had been submitted to the Navy Department, and proceeded with that map as a guide, to the interior. There he found that the map, like many other maps of Railroads and Canals, was a topographical delusion.

Where a river was laid down on the map he found a mountain, and instead of plains he discovered *sierras*.

And thus, this splendid scheme, about which three great nations indulged such hopes, for uniting the Atlantic and Pacific by a short cut, is dashed at once to pieces. Nothing now remains for us, then, to shorten the distance—commercially—to our Pacific possessions but a railroad, and the sooner one is constructed, so much the better for our country.

Punching and Shearing Machines.

On page 217, this volume, "Scientific American," we illustrated the punching and shearing machine, manufactured by Messrs. Liddell, (not Little as it was given by mistake) Kepler & Co., of Erie, Pa., which was on exhibition at the Crystal Palace. Since that time we have received information from the manufacturers that they have sold the machine that was on exhibition at the Crystal Palace, and have received a great number of orders for new machines from parties who became acquainted with the machine from the engraving in our columns. A good machine like this one will always find purchasers when its merits are made public.

Colt's Pistols in Europe.

Colonel Colt, it is said, has received an order from the British government to furnish their Baltic fleet with 5,000 of his navy pistols, as soon as possible; and he is notified that the entire fleet is to be furnished with them. The Armory at Hartford, Conn., will be required to do a good portion of this work.

Postage.

Mr. Olds, of Ohio, has introduced into the House of Representatives (Cong.) a proposition to increase the rates of land postage up to five and ten cents for single letters. We hope such a proposition will not be entertained.

Cleaning Dirt.

It cost \$60,000 a month ago to make one good sweep up of the streets of this city, and they are now ready for another.