

INSTANTANEOUS PHOTOGRAPHY.

We are indebted to Gen. Henry L. Abbot, U.S.A., in charge of the Engineer School of Application, Willet's Point, N. Y., for copies of photographs illustrating the remarkable sensitiveness of photo-gelatine plates, which we will briefly describe. It became necessary, one day, at Willet's point to destroy a worthless mule, and the subject was made the occasion of giving useful instruction to the military class there stationed. The mule was placed in proper position before a photo camera and duly focused. Upon the animal's forehead a cotton bag was tied containing six ounces of dynamite. The slide of the camera was supported by a fuse; the camera fuse and the dynamite on the mule's head being connected in the same electrical circuit, as shown by the wires in our engraving. On pressing the key so as to send the electricity through the wires, both the fuse and the dynamite were simultaneously fired; the camera slide and the head of the animal fell nearly together. The photo-sensitive plate was impressed with a picture of the headless creature, still standing, before its body had time to fall.

Fig. 1 of our illustrations shows the animal, camera and electrical wires in position for firing. Fig. 2 shows the appearance of the animal after the explosion, as taken on the photo plate. The experiment was made June 6 last.

The Bahama Banks.

The new data lately obtained by the United States coast and geodetic steamer Blake, Commander J. R. Bartlett, U.S.N., arrived at Providence, R. I., August 17, shows that the Bahama banks extend in an almost level plateau, nearly 200 miles wide, off the Carolinas, and drawing to a point at Cape Hatteras, only twenty-five miles off shore there being nearly two thousand fathoms. The average depth on the plateau was found to be a little over four hundred fathoms.

A Costly Dog Collar.

A San Francisco jeweler has lately made for a noted trick dog a collar described as follows:

The collar is made in twenty-four sections, comprising quartz, petrified wood, and silver silicates, such as never have been worked before, representing in their natural form perfect Japanese characters. Six of the sections are made in cabinet work representing fifty-seven different mines, with all the colors of quartz—black, pink, white, and greenish casts of every kind. At each end of the collar this section is of carbonate of silver with malachite streaks; then in regular order silver quartz; cabinets with minerals from different mines; then petrified wood and gold quartz until the center is reached, which is a large, oval-shaped cabinet with different ores, and the name of the dog, "Zip," in solid gold letters covered with Japanese crystal. As a specimen of California workmanship this is undoubtedly the finest that has yet been seen, both for beauty of design and excellence of workmanship, every prominent mine on the whole coast from Tombstone, Arizona, to Silver City, Idaho, being represented. The fastening is a lock of solid gold inlaid with platina.

Rapid Town Making.

About the middle of August a stampede took place from Deadwood, Central City, and Lead City, Dakota, to a new and wonderfully promising silver region about ten miles from Deadwood. A town was laid out, lots drawn for by all present, rules of government agreed to, and the place named "West Virginia City." In forty-eight hours the town contained nearly one thousand inhabitants, and nine saloons were in operation. On the third

day two faro banks were opened, restaurants were started, and, to cap the climax, on the fourth day the first copy of a daily newspaper, called the *Carbonate Reporter*, was issued. Fifty buildings were erected in one week, and as high as \$500 paid for building lots. The town promises to be permanent, as there have been many rich finds.

Kentucky's Biggest Tree Felled.

The Louisville *Commercial* reports the felling of Kentucky's largest tree near Carr's. The tree measured 18 feet in diam-

eter at the base. The cut was made 6 feet above the ground, where the tree was 12 feet through. The *Commercial* adds:

"From the cut to the first limb can be made eight good length rail-cuts, each 10 feet long, which would split enough rails to fence a small farm. The first limb was nearly a half dozen feet in diameter, and it would have, by itself, made a very large saw log. Nearly all the small limbs had fallen and decayed away. Its plank measurement is computed at nearly 50,000 feet, besides several limbs that would make, altogether, 25 cords of wood. On the day of the felling a large concourse of people marched from Vanceburg to the place. Colonel W. S. Rand, an able speaker, was the orator of the day. He and others, qualified to be good judges of such things, supposed that this mighty forester was four or

consists of novel devices for holding the carrier in place while loading, for unlocking the carrier so that it may be moved on its track.

An improved petticoat pipe fastener has been patented by Mr. Patrick J. Cleary, of Golden, Col. The object of the invention is to provide a secure, rapid, and convenient method of attaching, supporting, and removing the petticoat pipe in a locomotive smoke stack.

An improved cotton press has been patented by Mr. Theophilus Griffin, of Scotland Neck, N. C. The invention consists in a novel arrangement and combination of ropes and windlasses, whereby great power is obtained.

William Lay, of Atlanta, Ga., has patented a cheap, simple, and economical water motor that can be operated with a small quantity and but slight fall of water. The invention is designed as an improvement on the water motors for which Letters Patent No. 223,930 and No. 227,023 were issued to the same inventor January 27, 1880, and April 27, 1880, respectively.

An improved machine for making shoe buttons has been patented by Mr. Marcus M. Rhodes, of Taunton, Mass. These improvements relate to machines for forming the heads of the buttons from *papier mâché* blanks, cutting off the wire blanks, and forming the eyes and pressing the button heads upon the shanks of the eyes automatically and by successive operations in proper order.

A machine for beating and polishing rice has been patented by Mr. Jacob R. Sample, of Summit, Miss. The object of this invention is to facilitate the removal of the hulls of rice and the cleaning and polishing of the kernels.

Mr. Lewis R. Budd, of Cambridge, Texas, has patented improvements in moulds for constructing earth and stone fences; and it consists of a mould or guide for a solid fence made of sod and earth, or stone and earth, or other material.

An improved hoisting machine, patented by Mr. William B. Padgett, of Batesville, Ark., consists in a novel arrangement, a platform, a hollow screw shaft, a series of windlasses, a rope or chain, and a series of pulleys, whereby provision is made for raising and lowering weights, and for other purposes.

Mr. William W. Hills, of Cadillac, Mich., has patented an improved cant dog. The object of this invention is to improve the construction of cant hooks in such a manner as to make them stronger and more convenient and serviceable.

A machine for attaching tags to plug tobacco has been patented by Mr. August Markert, of Jersey City, N. J. The invention consists in a vertically sliding platform provided with suitable gauges, etc., pressed upward by springs, and provided with a removable longitudinal strip with apertures of the same size and shape as the tags, into which a series of vertical posts of the base of the machine project. The tags are placed upon the upper end surfaces of the posts with the prongs projecting upward, and the strips of paper and pieces of plug tobacco are placed upon the platform, upon which the piece of tobacco, and consequently the platform also, are depressed, and as the posts are rigid the tobacco can only be depressed until it rests on the posts; but by this operation the prongs of the tags have been forced into the tobacco.

An improved sash cord fastener has been patented by Messrs. Thomas P. Dunne and Paul Rath, of New York city. The object of this invention is to facilitate the attaching of the sash cord from which the balancing weight is suspended to the sash in such a manner that neither the stop beads, parting strips, nor the sashes need be removed for attaching the cord or chain.

MECHANICAL INVENTIONS.

An improved elevator and carrier has been patented by Mr. Daniel Dockstader, of Fonda, N. Y. The invention

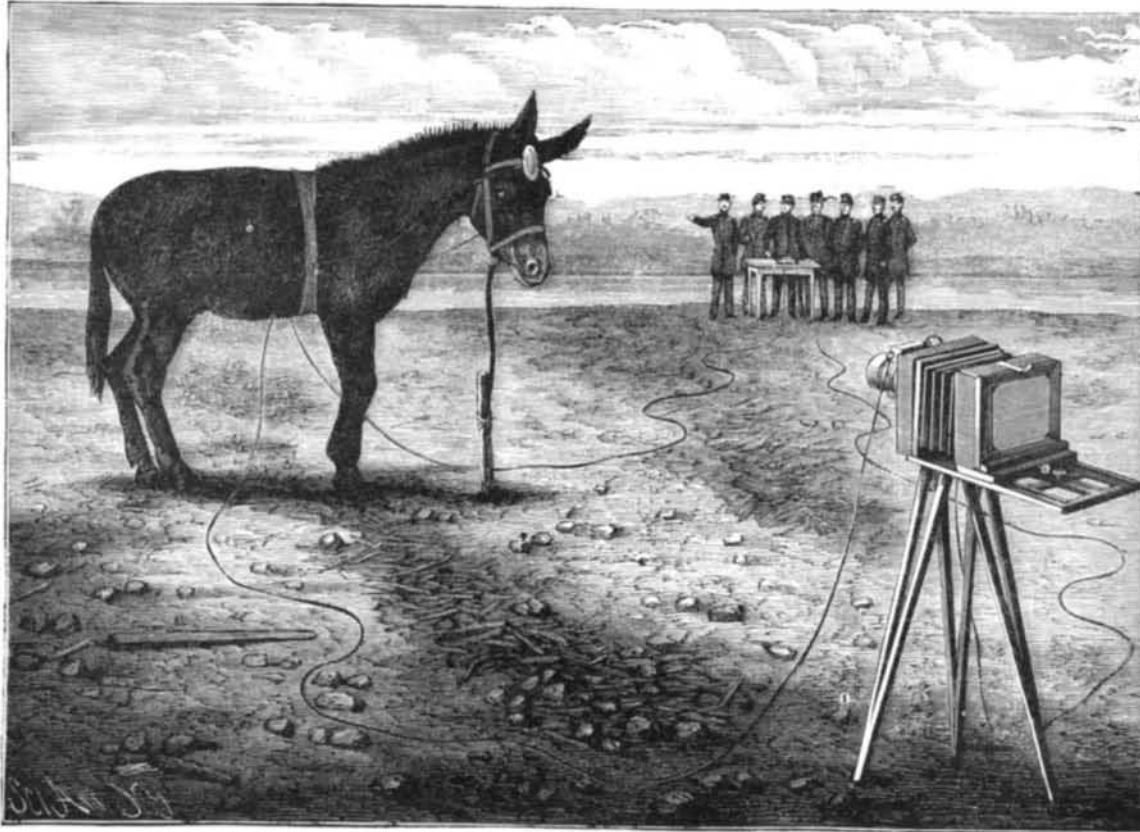


Fig. 1.—INSTANTANEOUS PHOTOGRAPHY.—BEFORE THE EXPLOSION.

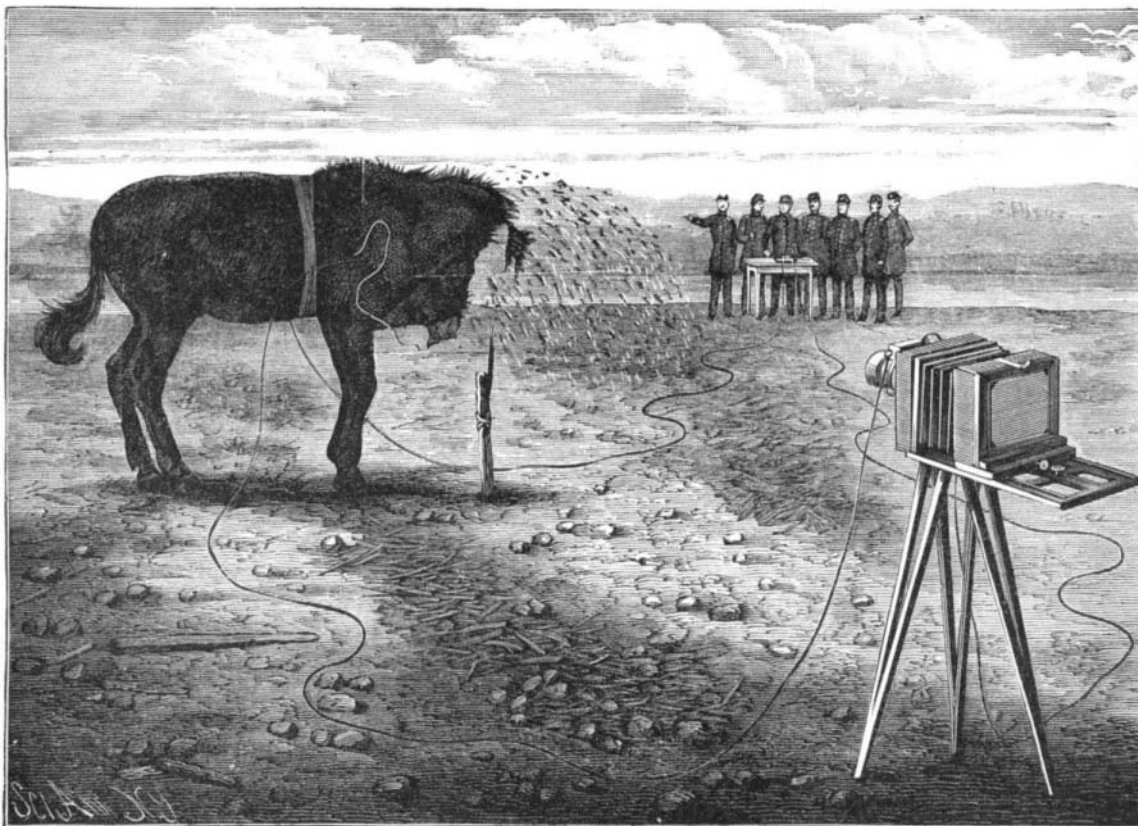


Fig. 2.—INSTANTANEOUS PHOTOGRAPHY.—AFTER THE EXPLOSION.

five centuries old. There were to be distinctly seen over 300 rings, and it is not known how long since it completed its growth, as it has been dead for many years.