

ENGINEERING INVENTIONS.

A railway signal has been patented by Mr. David Tapley, of Woodstock, New Brunswick, Canada. It is a semaphore so constructed that the signal may be set at any distance from the station, and operated by a boy over two thousand feet of wire passing around curves, the invention covering various new and useful improvements.

A steam engine has been patented by Mr. Adam Rosenkranz, of Allegheny, Pa. The engine case is formed with four cylinders, set opposite each other in pairs in the form of a cross, and all opening into a common central chamber in which rotates the crank of the engine shaft, being intended to rotate the driving shaft in either direction, operating under control of a single rotatory valve, and fitted with ports and a slide valve to allow instant reversal.

MECHANICAL INVENTION.

An auger bit has been patented by Mr. Charles H. Irwin, of Martinsville, Ohio. It has a solid center stem formed with a single convoluted blade, terminating at its lower end in a single chisel on one side of the stem, with a short additional convoluted blade at the same end of the stem, terminating at its outer end in an additional chisel on the opposite side of the stem, making a partially double and a single twist central stem auger bit applicable for hand and machine work.

AGRICULTURAL INVENTIONS.

A check row planter has been patented by Messrs. August F. Tiede and Jarius Wilcox, of Preston, Iowa. The invention covers a novel construction and combination of parts, the machine being intended to space off the dropping of the seed to secure accurate check row planting over uneven ground, and to distinctly mark the earth so that the regularity of the planting may be tested as the work progresses.

A farm gate has been patented by Mr. Philip Ramminer, of Greenwood, Wis. It is so constructed that when the gate swings either way, a toothed plate on the base of the posts intermeshing with a toothed segment on the gate causes the outer end of the gate to rise gradually, in such a way that it will close automatically by the effect of gravity, the construction being simple and the gate swinging very easily.

A combined cotton seed planter and fertilizer distributor has been patented by Mr. John I. Boswell, of near Chase City, Va. The machine has an opening plow, and is so constructed that the seed and the fertilizer will be guided into the bottom of the furrow opened by the plow, the amount of fertilizer discharged being easily regulated, with other novel features, the invention being an improvement on a former patented invention of the same inventor.

MISCELLANEOUS INVENTIONS.

A pocket protector has been patented by Mr. David J. Scott, of Ridgeway, N. C. It is a novel form of cheap and simple device, to attach to a garment without disfiguring it, for retaining the mouth of a pocket in a closed position, preventing the falling out of pencils, cigars, pocket books, etc.

A shirt has been patented by Mr. William B. Brokaw, of Newburg, N. Y. This invention provides an improved mode of uniting the bosom portions over the breast of the wearer, whereby the fastenings may be readily and quickly detached, thereby permitting the shirt to be conveniently washed, free of any obstructions.

A vehicle for delivering coal oil, etc., has been patented by Mr. Charles H. Weygant, of Newburg, N. Y. In connection with a vehicle adapted to carry a tank or barrels is a pump, measuring tank, and hose and reel, by which the liquid may be measured and conveniently transferred to some distance, and delivered above or below the vehicle.

A bookbinder's gold cleaning and saving machine has been patented by Mr. John N. Ives, of Brooklyn, N. Y. Wipers of soft rubber or other suitable material are employed, carried by a rotating frame inclosed in a box or suitable casing to retain the particles of gold removed by the wipers, the invention covering a novel construction, arrangement, and combination of parts.

A chute for cleaning coal has been patented by Mr. Peter F. Henigan, of Pittston, Pa. This invention covers a novel construction and arrangement of the longitudinal bars in a screening chute, providing for the automatic clearance of the slate as well as the culm, making the device a slate picker as well as cleaning chute.

A composition of building material for architectural purposes has been patented by Mr. Carl Straub, of Syracuse, N. Y. It consists of glue, water, boiled linseed oil, and muriatic and sulphuric acids, to be used with calcined sulphate of lime and calcined carbonate of lime, the compounding and use to be in a specially prescribed way.

A fire escape has been patented by Mr. John Dittrick, of Perth, Ontario, Canada. It has a shaft with two drums, cog wheel, and fan governor, and another shaft with cog wheels in combination with a drum and two descending ropes, to be placed in a building near a window frame, and operating so that each descent serves to set the opposite rope ready for another descent.

A hat holder has been patented by Mr. Edmund B. Culver, of Great Barrington, Mass. It consists of a spring strip, a hook, and an elastic band, the latter serving as a connection between the strip and hook in such way that the hat may thereby be suspended from the clothing of the person or from any fixed support.

A guard for windows and doors has been patented by Mr. Alfred Heath, of Jersey City, N. J. It consists of a single wire formed into a series of overlapping loops, with indentations formed at their points of intersection, and with screw-threaded ends and nuts, making an easily detachable guard for windows and the like, to prevent children from falling out, etc.

An air ship has been patented by Mr. James M. Wheeler, of Fish's Eddy, N. Y. It consists of a boat with a mast, and aeroplanes fitted for bodily movement on the mast, with wings adapted to open and close as the planes are reciprocated, combined with a cylinder containing expansive fluid under pressure, with a piston and rod connections therefrom for operating the aeroplanes.

A telephone has been patented by Mr. Charles S. Bell, of Columbus, Ohio. The invention covers a multipolar magnet, composed of a permanent magnet having a longitudinal bore, with a soft iron core inserted therein, and an insulating cylinder of non-magnetic material surrounding the core, with a helix surrounding the parts, in combination with the diaphragm of a telephonic instrument, and is intended to work in any place and way where a telephone connected with a battery can be worked.

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