RECENTLY PATENTED INVENTIONS. Railway-Appliances.

RAILROAD CROSSING .- DANE SCOTT, Delphos. Ohio. The purpose of this invention is to provide a railway crossing in which the pounding of the car and engine wheels at the crossing will be avoided. This is done by providing additional inside rails running parallel with the main rails and forming guideways in which are situated sliding blocks mounted on a suitable mechanism se that, as the train passes the cressing, the blocks may be raised to fill the spaces between the rails and thus provide additional bearing surface over which the treads of the wheels may roll.

RAILWAY SWITCH .- ERNEST P. NEWMAN, Stillwater, Minn. The invention consists of an automatic switch point capable of being shifted in either direction by a detent on a car striking an arm near the switch. The shifting mechanism consists of a grooved cam connected with suitable gearing. The switch point can be moved by a lever if operated manually, or it can be suitably connected and worked from a distance

Agricultural Apparatus.

COLTER. - ARTHUR C. GAYLORD, Sandeval, Ill. The invention consists in the main in providing the colter wheel and colter fork with conical bearings, so that they can be more readily adjusted. An improved clamp for fastening the upright standard to the plow arm is also included in the patent.

COLTER CLAMP.-ARTHUR C. GAYLORD, Sande val, Ill. This clamp consists of a circular plate provided with ears through which pass bolts that fasten it to the plew arm. The plate has a circular hele extending half way through it and having inclined, undercut edges The base part of the clamping jaws, that hold the colter standard, is made to fit in this hole, and when the jaws are tightened around the standard, the base is automatically clamped in place in any desired position.

COTTON-SEED DROPPER.-WARREN SMITH, De Leen Springs, Fla. The dreppercensists of a framework mounted on a sharp wheel for cutting the furrow, and having suitable handles attached to the seed dropping bex on the rear. A small plow or track clearer is mounted | cleansing them without injury to the finest or most deliin front of the furrowing wheel, and a coverer blade fills in the furrow after the seed has been dropped. The seed box has a concave bottom with a slot in it, and a drum containing pockets, which is revolved under it by means of a chain connection with the furrowing wheel, drops the seed every few feet in the ground. A retary stirrer in the seed box keeps the seeds from getting lumpy.

MACHINE SICKLE GRINDER. - EDDIE VILAS GREEN, Topeka, Kan. This invention consists of an attachment, for mowing machines whereby a sickle may be ground quickly and automatically while the machine is at work in the field. The sickle is placed in a saitable holder which is capable of moving it forward one tooth at a time by operating a lever. The grinder is set in metion by a sprocket and chain connected with a countershaft at right angles to the axle of the machine, the countershaft being turned by a bevel. The grinder wheel is given a reciprocating movement from the point to the upper edge of the teeth by means of a connection of its pivoted supports with a wheel on the countershaft.

MOWING-MACHINE SICKLE GRINDER.-EDDIE VILAS GREEN, Topeka, Kan. This arrangement is an improvement on the foregoing grinder in that, instead of reciprocating movement being given to the grinding wheel, this movement is given to the sickle blade itself. The blade is held in a rocker frame which is connected with a wheel on the countershaft by which it is given a reciprecating mevement.

SPRAYING APPARATUS .- MARION L. JOHNSON Mears, Mich. The sprayer consists of a chamber into which the liquid is drawn by the upstroke of a piston operated by a small windlass. A valve in the bottom of the chamber causes the liquid to be retained, and another valve in the tube leading to the spraying nozzle is kept closed till the apparatus is placed near the tree to be sprayed. When this valve is opened the piston is forced dewnward by a powerful coiled spring, and the operator has nothing to do but to direct the spray where it is needed.

Electrical Inventions.

TELEPHONE. - HENRY F BLACKWELL and MAUDE A. BLACKWELL, 99 East Eighty-first Street, New York, The object of this invention is to provide a small, compact instrument that may be carried in one's pocket and attached to a fire alarm system without impairing the circuit for fire alarm purposes. The telephone is placed in a neat box that may be hung on the open door of a fire alarm box and connected by flexible wires, plugs and sockets with the circuit. The primary is contained altogether in the telephone, except that its two ends run into the receiver, where they are connected at will by a fastening device. push button. One end of the secondary is connected with the line and the other end, after passing through the receiver, runs through a condenser to the ground. - A I though the instrument is particularly adapted for the use of the fire department, it will also be found an accurate instrument for making capacity determinations, etc., in both underground and everhead lines.

Miscellaneous Inventions.

FIREARM.-WALTER J. TURNBULL, New Orleans, La. The invention consists of a feeding device for a firearm in which a magazine or cartridge belt is em pleyed, and the object of the inventor is to make such improvements as to enable the cartridge to be fed by the same device that operates the hammer. This device consists of a wheel with cam teeth which operates the hammer. The inner surfaces of the teeth are growed so as to form shoulders to engage with wings formed on the cart. idge carrier. The carrier is thus turned sufficiently to bring a fresh cartridge in registry with the barrel and hammer every time the trigger is pulled.

RIPPING TOOL .- WYLY R. APPLEBAY, Lewell, Ohie. The tool consists of two handles, like scissor handles, pivoted together near one end. The handles terminate in a suitable head-piece having a plew-shaped point at the bottom forward end. Just behind this point a cutter is situated in the head. The cutter has a forward of this paper.

downward motion, and when operated by the shea handles rips a seam very rapidly, without in any way injuring the cleth.

TYPE-SETTING MACHINE.-CHARLES J. BOTZ. Sedalia, Mo. The machine comprises the following main parts: A casing containing a series of type channels, a mevable type chute er transmitter, a cempesing slide, and a spacing and column-forming mechanism respectively. The type channels are arranged in a semicircle and in several tiers. They are slightly tilted backward, and the type is pushed forward and into the chute by a ratchet-and-pawl pusher operated from the keyboard. The type chute is pivoted to move horizontally. It swings around the semi-circle and into place before the proper type-channel by pressing the correspending key. A mevable arm on the chute operates the pusher, which pushes forward the line sufficiently for a single type to fall into the chute and be delivered into the composing slide, where the types are formed into lines and spaced. The spacing and column forming. if not done by hand, is accomplished by two special at-

SPACING ATTACHMENT FOR TYPE-WRITERS. -ROBERT J. MINER, Greenwich, Conn. The attachment, which makes the proper spaces for tabulating accounts, consists of a series of fulcrumed space controlling blocks operated by special keys. A tappet is fast-ened to the carriage and the latter is stopped in the proper position by the blocks engaging the tappet. The carriage is provided with a swinging rack-bar which is lifted by a lever having its other end extending under the several blocks so that it can be moved by any of them. The raising of the rack by this lever allows the carriage to move enward till stopped by the tappet engaging the proper block.

WASHING MACHINE.-EDGAR LACHANCE, Pittsurg, Kan. The machine is constructed without the empleyment of rollers or shafts as rubbing surfaces for the clethes. It is herseshee-shaped in cross section, having corrugated lid similar to a washboard that closes the top. The machine has a perforated double bettom, so that when the machine is given a recking metion by hand aided by springs, the heated washing fluid and steam will be forced through the clothes, theroughly cate fabric.

WEIGHING ATTACHMENT FOR TRUCKS. GEORGE L. BANKS, Colorado Springs, Col. The attachment consists of a weighing platform mounted on two herizental cress reds which are suspended on knife edges from the truck frame. The cross-rods are connected through lever arms by a connecting red and coiled spring, as well as by connecting rods on each side. A pointer connected with the spring rod travels over an arc scale and registers the weight. When not in use, the weighing platform is kept in normal position by cams or

VEHICLE BODY. - FREDERICK MENZER. Flint. Mich. The ebject of the invention is to construct a second seat for buggies or sleighs that may be folded up when not in use. The body of the carriage is made long enough to allow of sliding the regular seat backward, after removing a folding box cover which normally closes the rear end. A folding seat and back is then raised and held in place by braces.

KILN OR FURNACE. - James O'Connel and Ben-JAMIN F. HILLERY, 640 West 131st Street, New York, N. Y. The invention consists of a boiler to be set in the arches of kilus or furnaces, and utilizes the steam generated to increase combustion. The boiler is an annular chamber having a steam dome and containing a circular firebox within it. The firebox is closed at the rear end by a fire wall extending upward about two thirds of the height of the box and by a damper hinged to the back of the wall and closed from the outside by a wheel. When the damper is closed, the products of combustion are entirely shut off from the central or burning chamber of the kiln, thus enabling a person to work in this chamber even when fire is in the furnaces surrounding it. A steam spray pipe is arranged under the grate, and the spray of steam tends materially to

METHOD OF FORMING DIES. -HENRY F. BLACK-WELL, Jr., 99 East 81st Street, New York, N. Y. In making the die, an electrotype is first made of the article to be reproduced. The intaglio of the electrotype is then filled with a supporting compound and a composite backing is formed by surrounding the electrotype with an iron cylinder and pouring in molten metal. The electrotype and supporting compound are then removed and the die is finished off in a lathe.

HEEL-RUBBER.-John H. Morrow, Chicago, Ill. This invention consists of a rubber heel casing made to fit ever the heel of a shee or boot to prevent the wearen from slipping when walking on icy sidewalks. The rubber is slit in the back at the top, and the two parts are fastened together by a button and socket or other

Designs.

CATTLE SHED .- WILLIAM HEATON, "Big Box. Allerton, Ill. The design consists of a simple shed with along section of sloping roof running from an apex to the back side wall. The framework of the entrance end inclines outward slightly from its base, and its upper end is connected with the main roof by a short slant-roof which makes an apex with the former. Horizontal cress beams connect the back end with the front, thus forming a left in the upper part of the shed, and the whole framework is strongly braced. A plan view of the shed shows it to be in segmental sections in the shape of a keystone, so that a number of these sections placed together will form a curved or circular shed.

ABDOMINAL BANDAGE.-DANIEL D. McCLURE. Pertland, Oregen. The bandage consists of a Y-shaped front piece fastened upon a main body portion which taners at each end to narrow hands that pass around the waist and are fastened in front to the end of each branch of the Y. The main body portion is also tapered down ward into strans that pass around the legs and are fastened to the bottom of the Y side by side.

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