readily removed and replaced and all slack in the saw-band can be taken up at any time and

while the band-saw is in use. This application

is a division of the application for Letters

Patent of the United States for a band-saw

●IL-CL●TH-PRINTING MACHINE.—W. H.

WALDRON, New Brunswick, N. J. The inten-

tion of the present improvement is to provide

a machine for printing oil-cloth arranged to

insure a positive locking of the intermittent

driving mechanism for the color-trough, to

cause an easy driving and locking of said

mechanism without shock or jar, to allow con-

venient adjustment or detachment of the print-

ing-blocks, and to reduce the weight of the trough to a minimum. This is a division of the application for Letters Patent of the United States formerly filed by Mr. Waldron.

PNEUMATIC CONTROLLING DEVICE FOR

ORGANS .- H. L. Davis, New York, N. Y. The object of the improvement is to provide a de-

vice arranged to render the pipe-valves exceed-

ingly sensitive, to insure proper opening and

closing of the pipes, to render the pipe-valves

noiseless in their action by stopping off the ex-

haust for the key-action by a diaphragm-valve

controlled by high pressure from the draw-stop

action.

formerly filed by Mr. Seymour.

#### RECENTLY PATENTED INVENTIONS. Electrical Devices.

AUTOMATIC BLOCK-SIGNAL SYSTEM. J. McIlwain, Okawville, Ill. By this system it is almost impossible for engineers to be unaware of the presence of other trains, and there is no excuse for a wreck. Lights upon the north side of the track are of different color from those upon the south, and lights in the signaling-station are colored accordingly. Should the engineer be color-blind he can at least see by looking ahead along the track that there are lights upon both sides of the track, which indicates something wrong. Should he recklessly disregard signals altogether, he is warned by the station agent, who watches the signals and keeps track of

#### Of Interest to Farmers.

WEEDING-HARROW. -L. M. MORROW Wasco, Ore. The harrow frame is mounted on wheels and provided with a draw-bar and appliances for hitching draft-animals thereto. Duplicate supplementary frames are employed, together with cutters and brackets therefor, mounted in duplicate series, one series being reversely disposed to the other and each having independent co-operative relation with one of the supplementary frames. The cutters of one or both series may be operated at will to penetrate the soil to effect cutting and upturning of weeds, and by same means both series may be elevated from the surface of the soil to facilitate turning the harrow or transferring it from field to field.

C●MBINED RAKE AND STACKER.—I. D. SCHENCK and F. V. THOMSON, Basin, Wyo. This invention relates to apparatus adapted to rake hay of various kinds from the swath, bunch, or windrow, to carry a charge of hav upon the rake-fingers to the stack, and to raise the charge and deposit it upon the stack. The object is to provide a simple apparatus which will work effectively as a rake and a stacker and which will so enable one man driving the rake and stacker to do the work ordinarily performed by two, one driving the rake and the other operating the stacker located at the stack.

#### Of General Interest.

RECEPTACLE-CLOSURE.-J. C. CHADWICK, Englewood, N. J. This invention refers to improvements in closures for receptacles for toothpowder or the like and of that class having a discharge-opening at one side. The object is to provide a closure of simple construction by the use of which the exact amount of powder will be discharged, thus resulting in an economical use of the powder.

VETERINARY MOUTH-SPECULUM. — I. C. CARSTENSEN, Oakesdale, Wash. In this instance the invention is an improvement in mouthspeculums which are particularly adapted for use in veterinary surgery or dentistry for holding open an animal's mouth and preventing the jaws closing while the operation proceeds.

KILN .-- A. F. DIETZ, Perth Amboy, N. J. This improvement relates, primarily, to a kiln for burning brick, tile, terra-cotta, and other earthen or ceramic material in which the heat is developed by burning pulverized fuel, such as a bituminous coal fee in the combustion-chamber in suspension in a blast of air. In this way complete utilization of the fuel fed into the kiln and high temperature are attained.

GARMENT-SUPPORTING DEVICE. - J. W. STOCKWELL and R. COATES, Jackson, Mich. The object of the invention is to produce a device which may be easily attached and detached, but which will not become detached accidentally, and which will be simple in construction and cheap to manufacture. The device has two reverse hooks for supporting garments and one or more hooks for securing it to one of the garments, all made out of a single piece of wire.

CHAIR LIFE-PRESERVER .- M. KUHNEN and A. SPADER, Rondout. N. Y. One of the purposes of the invention is to provide a chair which will serve all the functions of such an article, but which at a moment's notice can be quickly and conveniently converted into a life-preserver for use upon water, the parts of the device when used as a life-preserver being in the form of a raft.

#### Machines and Mechanical Devices,

TENSION DEVICE FOR WARP-BEAMS. -G. Keller. New York, N. Y. The object of the present invention is to provide a device for warp-beams or warp-carrying spools having a long range of movement and designed with a view to take up comparatively little room and to allow direct application of the device on the warp-beam of warp-carrying spool without the use of interposed gear-wheels. The invention relates to tension devices for warp-beams, such as shown and described in the Letters Patent of the United States formerly granted to Mr.

BAND-SAW.-C. SEYMOUR, Defiance; Ohio. Certain new and useful improvements in band's saws are provided by this inventor, whereby any sudden quiver or jar in the saw band or blade incident to the latter's striking a knot or the like is quickly compensated for to prevent injury to or breaking of the saw band or blade and whereby the endless saw-band can be

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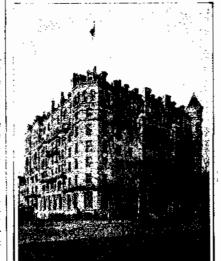
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#### AUTOMATIC PIANO-PLAYER. — J. B. WALKER, New York, N. Y. The invention relates to musical instruments and to appliances for actuating the same and admits of general use, but is of peculiar value in instances where the playing is partially automatic and partially under manual control of the operator. By Mr. Walker's improvement any variation of the relative intensity of theme and accompaniment may be produced that is possible in playing the plano by hand. He provides means by which improved control of expression may be secured with fewer levers than commonly used. For this control he employs a movement that admits of a "touch" corresponding in direction, sensitiveness, and rapidity to the stroke of the fingers in hand-playing. He brings the apparatus into conformity with the natural instinct of the operator to strike vertically downward with his

NOTE.—Copies of any of these patents will be furnished by Munn & Co. for ten cents each. Please state the name of the patentee, title of the invention, and date of this paper.

hand and to strike with vigor proportional to

the intensity desired in the expression of music.

### INDEX OF INVENTIONS

For which Letters Patent of the United States were Issued for the Week Ending October 24, 1905

AND EACH BEARING THAT DATE [See note at end of list about copies of these patents.]