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### INVENTIONS PATENTED.

### No. 13,917. Improvements on Electric Circuits. · (Perfectionnements aux circuits (lectriques.)

Francis Blake, Weston, Mass., U. S., 2nd January, 1882: for 15 years. Claim.—1st A number of metallic plates and a number of insulated plates of substantially the same dimensions alternating in a pile, in embination with a number of smaller plates, one for each of the electric circuits between which connections are to be made, a peg hole in and through each smaller metallic plate extending also through peg white two flanges, whereby it is adapted to make connections between two of several insulated metallic plates placed in a pile, and such conjugate the plates plated in a pile, and insulated connecting plates and smaller line plates perforated, of several pairs of contact pegs, the contact perions of said pegs being at equal distances apart in pegs of different pairs, whereby each pair of pegs may be used with any and all the line plates, but with only one and the same connecting plate. Claim.—1st A number of metallic plates and a number of insulated

### No. 13,918. Adjustable Sent Rail for Carriage Tops. (Barre mobile de siège pour les soufflets des voitures )

Daniel Conboy, Uxbridge, Ont., 2nd January, 1882; (Re-issue of Patent No. 10,150.)

Claim. -1st. In a carriage top in which the bottom of the back curtain'is fastened to a rail or bar extending across the rear of the seat, the combination of a device arranged to secure the said rail to the seatin seating across the said rail to the seating seatin Sea to see the said name of the secure the said name of the sea to see the second name of the second name of

# No. 13,919. Method of Removing Iron from Ferruginous Aluminous Solu-tions. (Méthode pour enlever le fer des

solutions ferrugineuses alumineuses.)

Conrad Semper and Constantine Fahlberg, Philadelphia, Pa., U.S., 2nd January, 1882; for 5 years.

2nd January, 1882: for 5 years.

Claim.—1st. The method of removing iron from a ferruginous solution of the salt of a metal-alkali or alkaline earth, which constants in treating said ferruginous solutions with plumbic dioxide. The method of manufacturing sulphate of alumina or aluminous cake free or almost free from iron, which consists in treating ferrof purifying music plumbic dioxide and ferric plumbate, produced in the process of precipitating iron from ferruginous solutions, which salt, for the removal of the iron therefrom.

## No. 13,920. Improvements on Steam Rock Drills. (Perfectionnements aux forets de

The Rand Drill Company, (Assignee of Joseph C. Gittens,) New York, N. Y., U. S., 2nd January, 182; for 5 years. mine à vapeur.)

Claim.—1st. In a column for the support of a rock drill, the sorted radius bar b, in combination with the jack screws a a inserted through the platform A, and the column A. 2nd. The column

A provided with the adjustable shoulder C composed of the two curved jaws c1 c2, which embrace the column upon opposite sides and are clamped thereon by the transverse clamping bolts c3 c3 provided with the nuts c4 c4, for the purpose of affording a vertically adjustable bearing for the lower end of the hub D1 of the lateral arm D. 37d. The bearing for the drill cylinder carriage composed of a number of equidistant elevations g g arranged radially with relation to the bolt which constitutes the axis of oscillation for the carriage. 4th. The arrangement of the steam valve H1 having its stem projecting laterally from the side of the steam chest \( \int \) and provided with a lever or handle in convenient position to be reached by one hand of the operator, while his other hand is grasped upon the crank of the fred screw. 5th. The axially split crank nut K provided with the transverse clamping screw bolt k, in combination with longitudinal feed screw. 5th. The chuck M provided upon its inner end with the transverse clamping bolt m3 and having a female screw thread formed upon its middle section only, and having its inner section sufficiently large in diameter to embrace the shank of the piston rod, above the portion upon which the male screw thread is cut. above the portion upon which the male screw thread is cut.

## No. 13,921. Improvements on Corn Mills.

(Perfectionnements aux moulins & blé-d'inde.)

Albert E. F. Chattaway, Wixford, Eng., 2nd January, 1882; for 5 years.

Claim.— The arrangement and combination of the several parts or appliances by which to drive the lower stone at a high speed, without disturbing the position of either of the stones relatively, namely: mounting the lower stone of in a frame Deapable of adjustment and fixing on bearings L, or similarly mounting the upper stone H together with the several parts R S, by which such adjustment and fixing are effected.

#### No. 13,922. Improvements on Steam Boiler Cleaners. (Perfectionnements aux nettoyeurs des chaudières d vapeur.)

Christ Reiser, Prairie du Chien, Wis., U. S., 2nd January 1882; for 5 years.

years.

Claim.—1st. In combination with the tubes a of a steam boiler, the chamber B having inlet pipe D, trough E, plates, pans or traps F G H and pipes I. 2nd. A steam boiler cleaner composed of the following separable and detachable parts, namely: the lower trough or pan H having the overflow pipes I, the trough or plates G F E and feed pipe D. 3rd. In combination with a steam boiler cleaner, the pipe K with its connections and cock.

### No. 13,923. Improvements on Head Lights for Locomotives. (Perfectionnements aux lanternes des tocomotives.)

Irvin A. Williams, Utica, N. Y., U.S., 2nd January 1882; for 10 years. Claim.—1st. The combination of a burner, a head light case and a reflector provided with means whereby access from the outside of the reflector and in rear of its front edge or flanges afforded for either lighting, trimming or cleaning the burner within the head light case without removing the reflector from the case, and without moving the burner from its normal position, or a portion of the reflector as an adjunct of the burner, away with the burner from the position of use within the case. 2nd. The combination of a head light case, a reflector movable within the case and a burner and the burner either cleaned, trimmed or lighted without removable in the case, a reflector from the case. 3rd. The combination of a head light case, a burner movable in the case, a reflector and means whereby the burner can be lighted, or cleaned or trimmed within the head light case without removing the reflector from the case, and without moving a portion of the reflector, as an adjunct of the burner, away with the burner from its position of use within the case. 4th. The combination of a head light case, a reflector, a removable burner and means whereby the burner can be removed out of the case without removing the reflector from said case, and without moving a portion of the reflector from said case, and without moving a portion of the reflector from said case, and without moving a portion of the reflector from said case, and without moving a portion of the reflector, which is movable in the head light case out of the range of the burner in said case.