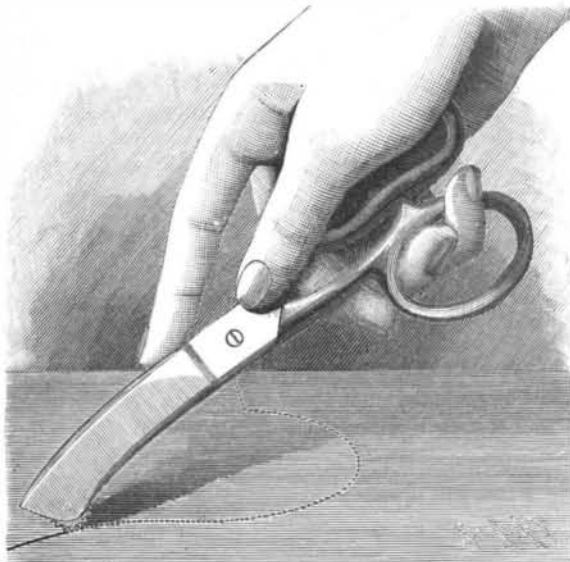


A PATTERN TRACING AND CUTTING DEVICE.

A simple modification of the ordinary scissors or shears, and one that cannot fail to be extremely useful for dressmakers and others cutting to pattern, is shown in the accompanying illustration, and has been patented by Mr. Frank E. Buddington, of No. 2108 Wabash Avenue, Chicago, Ill. Heretofore it has been customary to first use a tracing wheel to run over the

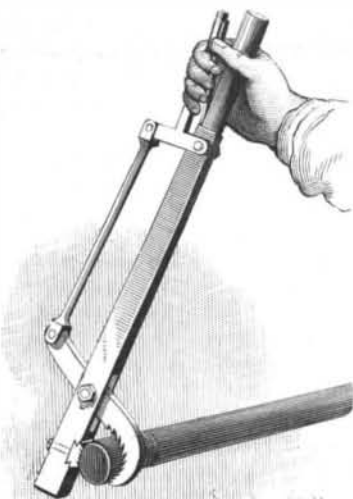


BUDDINGTON'S TRACER AND SCISSORS.

lines on the paper or other pattern sheet, thus transferring the pattern, but this required two independent tools, which was sometimes an inconvenience. By this invention the tracing wheel is made a part of the scissors or shears used to cut out the material, the wheel being mounted on the forward portion of the back of one blade. After thus marking out the pattern, as shown in the illustration, the scissors are inverted and used in the ordinary way for cutting the fabric as marked.

AN IMPROVED PIPE TONGS OR WRENCH.

A wrench which is readily adjustable to different

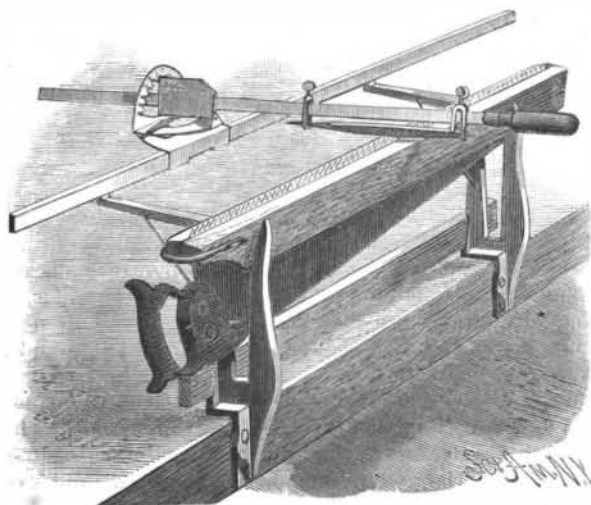


CARVIN'S PIPE WRENCH.

sizes of pipe, and whose jaws give a great amount of bearing surface, is shown in the accompanying illustration. At the end of the shank opposite the handle end is a dove-tailed slot, adapted to receive a detachable jaw with concave toothed surface, this jaw being held in position by means of a screw passing through the shank and engaging its under side. Near this stationary detachable jaw is pivoted a movable jaw, the

end of which, projecting through the shank, is connected by a rod with a lever pivoted by arms to the shank near its handle. This handle lever is normally held open by a spring, thus holding the jaws of the tongs open; but in applying the wrench to a pipe this lever is pressed down upon the handle by the hand, tightening the toothed jaws upon the pipe in proportion to the force applied.

For further information relative to this invention address the patentee, Mr. Edward O. Carvin, Berryvale, Siskiyou County, Cal.



SHERMAN'S SAW FILER.

Annual Report of the Commissioner of Patents.

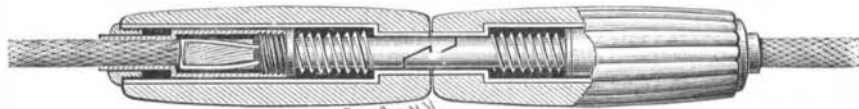
Hon. Benton J. Hall, the Commissioner of Patents, in his synopsis of his annual report furnished the Secretary of the Interior, says that the number of applications for patents of all kinds received during the fiscal year ending June 30, 1887, was 40,678. The number of patents granted during the year, including reissues and designs, was 21,732; number of trade marks registered, 1,101; number of labels registered, 584; number of patents expired, 12,782. The receipts of the office from all sources aggregate \$1,150,046; total expenditures, \$971,644. For 1886 the number of applications received was 38,408.

The Commissioner renews the recommendation of his predecessors that the Patent Office be furnished with more room.

Referring to the defalcation of Financial Clerk Levi Bacon, deceased, the Commissioner says that the shortage was \$31,091, against which were found due bills, miscellaneous memoranda, etc., amounting to \$15,011, leaving net cash unaccounted for, \$16,080. Of this latter sum \$11,525 is public money, belonging to the revenue of the office. The remainder, \$4,555, belongs to the attorneys' fund. From the aggregate of the due bills \$8,668 have been collected, leaving \$22,422 as the present deficiency.

AN IMPROVED BELL CORD COUPLING.

An easily adjustable bell cord coupling, for use on railroad cars, and one which will not part or become disengaged after coupling, is shown in the accompanying illustration, and has been patented by Mr. Christian H. Peters, of No. 508 East North Street, Danville, Ill. It consists of a metal tube or casing within which the coupling hooks on the meeting ends of the bell cord work, the tube being covered by a snugly fitting jacket of soft rubber, to prevent the breaking of glass, etc., when the cord is violently pulled through the cord hangers. The coupling hooks are threaded at their inner ends, and have projecting fingers which bite into the ends of the bell cord, a sleeve, passing over the end of the cord and the fingers, screwing on the threaded end of the coupling hook. A spiral spring working within the casing acts to hold the coupling hook in place when the connection is broken, and also serves to tighten the coupling joint and prevent the hook from becoming disengaged.



PETERS' BELL CORD COUPLING.

AN IMPROVED SAW FILING MACHINE.

An efficient and easily worked device by which saw teeth may be filed to an accurate and uniform bevel and pitch is shown in the accompanying illustration, and has been patented by Mr. Hamilton Sherman, of Waverly, Pa. It consists of a file frame guide with a base plate sliding on a guide bar. A head piece is pivoted to the base plate, so as to be movable in horizontal plane, and has a guide frame for the file-holding frame bar to slide through, pivoted to the head piece, to swing to either side of a vertical line, there being catches for holding the file to the required sidewise, slanting, and axial positions. The saw is firmly held in the clamp of the machine frame, which is so made as to be easily taken apart and put together, and the file frame, in which the file has been set, is adjusted at the required angle to give the proper bevel to the saw teeth, and also to set the file axially, and the file is then held relatively in these same positions to the saw throughout the work of filing. Accuracy and uniformity are thus secured, and the operation can be most expeditiously performed.

IMPROVED ATTACHMENT FOR BLINDING HORSES.

A device that is readily applicable to any bridle, and by which a horse may be quickly and effectually prevented from seeing, the device being operated from either the saddle or a vehicle, is shown in the accompanying illustration. The invention consists in providing the blinds or winkers with small pulleys, in connection with straps or cording passing through the pulleys, the straps or cords being united over the neck and operated with the reins. The device is extremely simple and inexpensive, but enables the driver, with a sharp pull of the cord, to instantly cover the horse's eyes, and thus effectually blind him. The horse thus suddenly blinded generally becomes docile, and can be led at will, many horses having been saved from fire, as is



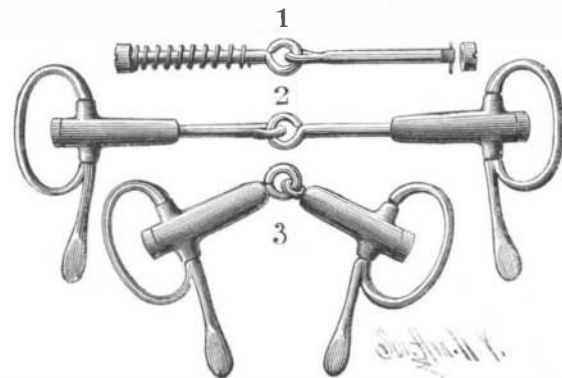
ADAMS' BLINDER ATTACHMENT FOR BRIDLES.

well known, by throwing a blanket over their heads, without which it is frequently impossible to lead them from their stalls in case of fire in stables. As there are about 12,000,000 horses in the United States, it is evident that there is a large field in which such an invention is applicable, as for carriage, buggy, and saddle horses, and with all animals generally kept for private or family use, as a precaution against accidents.

For further particulars address the patentee, Mr. Charles H. Adams, 52 Broadway, New York City, room No. 79.

AN IMPROVED BIT FOR HORSES.

A bridle bit which can be instantly converted from a bit for gentle or easy driving to a severe bit for curbing frightened or vicious horses is shown in the ac-



MANNING'S BRIDLE BIT.

companying illustration, and has been patented by Mr. James A. Manning, of Danville, Ind. The mouth bars of the bit may be made either round or square, or with concave sides, being jointed in the middle as in the ordinary snaffle bit, and surrounding each bar, within sleeves, is a spiral spring. Fig. 1 shows the bit having the spiral spring on one mouth bar, but without the sleeve, Fig. 3 showing its normal shape during easy

driving, and Fig. 2 as the sleeves are drawn outward by the excessive pulling of the horse upon the reins. The great leverage afforded by the bit in the latter position, especially when the mouth bars are of angular form, is calculated to quickly reduce the horse to submission, whereupon, with lessening tension upon the reins, the sleeves are returned inwardly over the mouth bars by the springs. The sleeves are secured to or formed integral with the usual rein rings and bars or guards.

Moisture-proof Glue.

Dissolve 16 ounces of glue in 3 pints of skim milk, and if a still stronger glue be wanted, add powdered lime.

For marine glue, heat moderately a mixture of India rubber (one part by weight), mineral naphtha or tar (two parts), and add twenty parts of lac in powder. To use this glue, it must be heated to a temperature of 120° C.—*Revue Industrielle.*