AUTOMATIC CAR COUPLING .- Willard E. Bush, Damacus, Pa.- This inven. tion consists in attaching spring catcaes to the coupling pin, to prevent its displacement by the motion of the cars, and in the form of the ends of the escaping link, and in the provision made for holding the link in place.

APPARATUS FOR BOILING EGGS. - Ira Dimock, Florence, Mass.- This in vention consists, in general terms, of a chamber forming part of a stand or basket for holding eggs, to be immersed in boiling water. The chamber contains water, which becoming expanded by heat, actuates a rod communicating with bell mechanism, whereby the bell is sounded when the water has acquired a certain pre-letermined temperature. The chamber is inclosed by another, and the separating space between the two chambers contains air or other media to retard the transmission of heat to the water within the innerchamber, and thus allow sufficient time for the boiling process.

WEEDING AND SCUFFLING HOE .- Lewis King, Oriskany Falls, N. Y.-This invention consists in torming the hoe and shank in one continuous piece, the shank being bent and fisttened to form a blade which, from its position at right angles to the handle and parallel with the ground, as ordinarily held, operates in a superior manner as a scuffing hoe.

HORSE RAKE-Nicholas Selby, Flora, Ill.-This invention is designed as an improvement upon a rake patented by J. C. and E.D. Furger, of Bridgeport, Ill., in August of 1867. The improvement consists in providing a balanced or sulky frame, which is pivoted on two draft wheels and provided with a hinged trame which supports the revolving rake.

WASHING MACHINE.-G.A. Dabney, Sin José, Cal-This invention has for its object to furnish an improved machine for washing clothes, which shall be simple in construction and effective in operation, doingits work radidly and thoroughly.

WEATHER BOARD GAGE .- Worden E. Stoddard, Fort Edward, N Y.-This invention has for its object to improve the construction of the weather board gage patented by the same inventor May 17, 18,9, and numbere 1 24,066

BAG TIE -J. W. Bates, Glencoe, Minn.-This invention has for its object to furnish an improved device for tying bags, sacks, sheaves of grain, laths, pickets, and other such articles put up in bundles, which shall be simple in construction, inexpensive. easily and quickly attached and detached, and which will nold the bag or bundlesecurely tied.

BOOK FOR OOKKEEPING .- John H. Gleim, St. Louis, Mo .- This invention has for its object to diminish the number of books required in conducting a business, whether wholes ale, retail, or commission, and at the same time so combining and arranging the columns of the journal as to r. quire less labor in making the entries, and generally simplifying the record of the business.

MACHINE FOR WEIGHING AND TALLYING GRAIN.-F. S. McWhorter, St. teorge's. Del.-This invention relates to the weighing and taliying of grain automatically. It consists in general terms of a belt of elevating buckets op erating within a box or casing, whereby the grain is elevated and passe over into a vertical chute in which is arranged a sleeve which is provided with adevice for choking the same to discontinue the flour or grain through it. The device discharges the graininto a rack held on a sack holder, which being connected with a steelyard properly weighted, the movement of the steelyard causes the chocking of the sleeve by being connected with the chocking device. Other devices peried the operation of the whole, render-ing it a simple and effective device, which is applicable to the discharge of  $\operatorname{grain} from \, \operatorname{or} \, \operatorname{into} \, \operatorname{box} \, \operatorname{cars}, \, \operatorname{canal} \, \operatorname{boats}, \, \operatorname{vessels}, \, \operatorname{and} \, \operatorname{grain} \, \operatorname{lofts}.$ 

CHAIR.-H. Buchter, Louisville, Ky.-This invention has for its object to furnish an improvement in the mode of securing the ends of the canes in forming the seats of cane seated chairs, by means of which the canes may be placed close together, so as to form a close sent, while at the same time the seats will last much longer and may be much more quickly formed than when made in the ordinary manner.

WROUGHT IRON AND STEEL COLUMNS .- George Walters and Thomas Shaf fer, Phoenaxville, Pa.-This invention has for its object to furnish an improved iron or steel column or shaft for use in the construction of buildings, bridges, piers, tr stle work, compression chords, etc., which shall be simple in construction, strong, and solid, and which may be manufactured at a less expense than columns or shafts constructed in the usual manner.

CORN SHELLING MACHINE.-Joshua S. Rackham, Waterport, N. Y.-This invention consists in a ver ical cylindrical shell made in sections, which are divided into segments hinged at one end, the other being allowed to swing outwardly against springs, which constantly tend to maintain them in a con centric position. A vertical cylinder is provided within the said shell, on an axis, and provided with teeth which act in conjunction with corresponding teeth upon the interior of the shell. The swinging segmental sections are designed to yield to the different sizes of the ears to be shelled. A screen and fan blower are also provided for cleaning the corn as it passes through the machine.

COLLAR AND CRAVAT FASTENER.-Emanuel Rau, New York city.-Thisir vention relates to a new instrument for connecting a cravat, and the ends of a paper or other collar with the neckband of a shirt. The invention consists in the use of a pin, with a nead on one en i, and a projecting preastpin. all combined in such manner that the aforesaid result can most readily b obtained.

MOWING AND REAPING MACHINE.-H. Howe, Oneota, N.Y.-This invention consists in hanging on each end of the counter shaft a loose pinion, each pinioa being connected with the counter shaft by means of a ratchet spring clurch. The pinion on the left hand side is smaller than the other, and it will as it meshes into internal gear of the left hand driving wheel carry the coun tershaftround while the other pinton will remain idle, not being able to re volve with the counter shaft. The strain of the whole machine is thus thrown upon the left hand side and consequently taken away from the cut ting side of the machine.

METHOD FOR DESTROYING CARTERPILLARS .- H. A. Graef, Brooklyn, N. Y -The object of this invention is to devise a means for destroying and exter minating the caterpullars, and more particularly the measur worms (ennoted the measur  $\$ mos subs gnaria), by which a great number of trees and other plants are injured. The invention consists in the application of diluted Galoride of lime, which, when applied to these insects, will instantly kill them by mere ly coming in contact with their skins.

LAMP BURNER.-W. W. Jacobs, Hagerstown, Md.-This invention relates to an improvement on a lamp burner, for which letters patent were granted and dated Nov. 5, 1867. This burner is intended for burning oil without a chimney, by generating gas by the heat of the tube.

METHOD OF GENERATING STEAM .- Frank M. Horning, East Pike, N. Y.-The object of the suvention is to utilize all, or nearly all, the heat produced J. C. N., of Minn.—" Will you infor

scending, so as to escape again from the lower part of the apparatus. The P. P. C., of R. I.-. "What constitutes the difference in the steam, during its passage through the apparatus, heats the metallic or other sides of the same, which heat is radiated into the room or apartment, in which the device is set up.

CORN PLANTER .- D. F. Taft, New Bedford, Mass.-This invention relates to a new seed planter, which is provided with a flexible or jointed spout, so that the marking and covering shovels attached to the lower end of the spout, can be easily raised out of the ground, whenever obstructions are in th ir way, or when the machine is not to be put in operation. The invention also consists in the use of a new device for operating the slide in the seed box, and for throwing the same out of gear.

SAFETY VALVE FOR STEAM BOILERS .- Wm. R. Malone, Mason city. W. Va -The object of this invention is to provide a means for automatically check ing the increase of steam in the boilers, when the desired amount of pres sure has been raised, and it consists in providing means for conveying the steam or water which escapes through the safety valve, and the fire for checking it, whereby the increase of steam is checked. It also consists in an improved method of connecting the satety valve to the boiler.

COUNTER SINKS .- P. A. Whitney, Woodstock, Vt .- This invention relates to an improvement in counter sinks or reamers for metal, and consists in the arrangement within a hollow stock of the cutters, which is made of a piece of flat steel between two clamping nose pieces, through which it is fed downward by a feeding screw as it wears away.

BIT STOCK.-Benjamin Darling, Bridgewater, Mass.-The object of this invention is to construct a bitstock so that the shank of the bit or boring auger may be firmly held without the use of springs or screw nuts, and so that the bits or augers may be used without cutting their shanks or filing them in any manner.

BEE HOUSE.-Charles Decker, New Michigan, Ill.-This invention relates to a new and improved bee house, and it consists in the means employed for suspending the comb frames in the house.

MACHINE FOR BENDING OR FOLDING SHEET METAL .- A. W. Whitney and P. A. Whitney, Woodstock, Vt.-fais invention relates to a new and improved machine for bendi...g or folding sheet metal designs for the use of tinsmiths and o her arti-ans in sheet metal.

WHEELS FORVEHICLES .- R. J. Bowman, Mansfield, La.-This invention relates to a new and useful improvement in the construction of metallic wheels for vehicles, whereby strength and lightness are obtained with a requisite amount of elasticity to avoid the transmission of jars and concusslonsto the pody of the vehicleand the consequent wear and tear attending the same.

SUKKY CULTIVATOR AND SEEDING MACHINE .- Frank A. Hill, Marvsville Cal.-This invention relates to a new and improved sulky cultivator and seed ing machine, and it consists in a novel construction and arrangement of parts whereby the riner and driver has perfect control over the implement both as regards the sowing of these edan a the adjustment of the shares on teeth.

ROTARY CULTIVATORAND SEEDING MACHINE .- Stephen Mahurin, Clayton, Ill.-This invention relates to a new and improved device for cultivating the earth and sowing seed, and it consists of one or more shafts provided with teeth and having a rotary motion communicated to them by the forward movement of the machine.

BUTTON HOLE CUTTER.-A. J. Lytle, West Union, Ohio.-This invention relates to a new and improved method of constructing button hole cutters whereby the same are more simple in their construction and more effectiv in their operation.

SAW FILING MACHINE .- D. H. Iseminger, McLean, Ill.-The object of this invention is to provide a simple and effective and conveniently operated ma chineforfiling the teeth of straight saws. It consists of the combination of saw clamps with a guide rod and file stock, the file stock being provided with certainswivel appliances to enable the file to be pointed and held parallel to itself at each successive tooth of the same. The machine is provided with other devices perfecting its operation.

ATTACHMENT FOR SODA FOUNTAINS .- J. C. Wharton, Nashville, Tenn. The object of this invention is to provide an attachment for soda water foun tains whereby a jet of water will be made to play upon each of the nozzles of the sirup font cocks (which form  ${}_{\rm st}\,{\rm part}$  of the fountain apparatus as gene rally constructed) and cleanse the said nozzles from any acherent drops of sirup thus preventing the obstruction of the same by the saccharine matter of the sirups collecting thereon.

HAND SPLINT KNIFE .- Samuel Friend, and John McCollom, Decatur, Ill This invention relates to an improvement in a knife for splitting or riving splints or splits from timber for making baskets and other purposes, and con sists in a tool resembling a spoke shave in form and is worked by one man drawing it towards him without a carriage, instead of by pushing with sev eral men in the manner of the splint machines in common use.

HOSE AND MACHINERY FOR MAKING IT .- Geo. Coles, London, and Jame Archibald Jacques, and Jao. Americus Fanshaw, Tottenham, England.- this invention consists in forming flexible hose by plaiting or braiding the same around a core formed of rope or other suitable material and arranged so as to be withdrawn after the hose has been formed. It also consists in improve ments in machinery for braiding the same.

BRAKEFOR RAILWAY CARS .- Martin H. Rumpf, Paris, France.- This brak consists in a lever with a bloc ; adherent thereto, suspended from an axis ec centric to the axis of the wheel and arranged so as to allow the block to bear on the face of the wheels together with other parts accessible thereto

The principle of the system lies in the blocks being arranged in their drop ping against the circumference of the wheels, to describe an arc of a circle which intersects more or less obliquely the said circumference, so as to pro duce, of themselves, the blockage by means of the rotation of the wheels.

## Answers to Correspondents.

- **CORRESPONDENTS** who expect to receive answers to their letters must, in all cases, sign their names. We have a right to know those who seek in-formation from us; besides, as sometimes happens, we may prefer to ad dress the correspondent by mail.
- SPECIAL NOTE-This column is designed for the general interest and in struction of our readers, not for gratuitous replies to guestions of a purel business or personal nature. We will publish such inguries, however ichen paid for as advertisemets at \$100 a time, under the head of "Bus ness and Fersonal."
- I All reference to back numbers should be by volume and page.

- quality of cast steel, the original materials or the after working ?" Both, but largely the latter. We have three specimens of cast steel on our table now, made by the American Tool Steel Company in Brooklyn, N. Y., each broken from the same bar and from the same end of the bar, yet so differing in appearance of fracture that one would be impelled, from the evidence of his evesight, to declare they were three different grades of steel. These differences in texture, not in appearance only, but in fact, were brought about simply by the degrees of heat to which the pieces were subjected, no hammering being attempted. Now if such marked variations in the quality of steel from the same bar may be obtained simply by heating and hardening in clean water, why should not still greater differences and qualities be produced by judicious forging? By this means a course grained steel may be wrought into a delicate spring or a fine tool, good cutting edge. Too much, however, in this case is left to the skill of the forger, and it is safer to use the best material if the best results are desired.
- J. A., of Mass.-Acids act not only upon the edge of steel blades, but upon their quality. We know the reason for the first but we cannot explain the other phenomenon. The acid of truits attacks vigorously the steel, especially when presented in a thin edge-almost all surface-and rapidly oxidizes it. But why a blade of steel long exposed to the action of acids refuses to receive the hardening attempted by the forger's hammer and bath we cannot say. The fact is one of the uncracked nuts in mechanics, but it is, nevertheless a fact.

W. A. K., of Mass -- Cast iron is capable of receiving a cutting edge. The only reason why it is not used instead of cast steel, much more costly, 18 that it will not retain that edge. Still, we have used a razor blade made of cast iron and found it shaved as cle only and perfectly as one of fine steel. Cast iron hatchets are now manufactured and work wellfor a time. We cannot, however, recommend cast iron as a substitute for steel for edge tools.

M. A. R., of R. 1.--The temper of tools used in cutting wood can easily be destroyed by being driven too fast. The fact that the wood is green or wet does not affect the result. Green wood will as soon deteriorate the quality of a cutter, whether bit, chisel, or gouge as the hardest quality of kiln dried timber.

J., of--an anonymous correspondent, such as we seldom notice, asks if steam is inflammable. The question may be of some general value, and we answer that it has the power of influming substances capable of being ignited by heat. It is not the medium but the temperature that produces fire or inflammability.

P. C. W., of Mass.-Carbonates of lime are acted upon by  $acids, therefore \,keep all\,acidulated\,liquids\,and\,fruits\,from\,\,your marble\,table$ Preserve the varnished surfaces of your furmiture from defacement by not allowing alcohol in any form to come in contact with them. The reason is obvious.

# Business and Lersonal.

The charge for insertion under this head is one dollar a line.

Wanted to know where to obtain a reliable liquid meter for registering petroleum. Address H. W. Faucett, Petroleum Center, Pa.

A. H. Scott, Concord, N. C., has a valuable new patent for sale, and wishes to communicate with dealers in patents in the several States.

New pictures for the zoetrope. Series No 5, sold by booksellers, or sent for \$1, by Milton Bradley & Co., Springfield, Mass.

Paper mill wanted. Address T. S. V., Roslyn, L. I.

- The best lathe for irregular forms, now exhibiting at Maryland Institute. Address, for particulars, during fair. A. R. Stewart, Maryland Institute, Baltimore, Md.
- An interest in a valuable agricultural improvement is offered to any one who will furnish means to sell the right. Address "R.,"231 F st., Washington, D. C.
- To manufacturers.-Fine machinery of every kind designed and built by S. W. Gardiner, No. 6 Alling st., Newark, N. J.
- Parties about to buy steam boilers should examine Root's wrought iron sectional safety boiler at 95 and 97 Liberty st., New York. See advertisement.
- Inventors and owners of small patents send circulars to postoffice box 111. Peekskill. N. Y.

The pew hat rack .- County rights for sale. Send for circular to E. S. Blake, Pittsburgh, Pa.

Peck's patent drop press. For circulars, address the sole manufacturers, Milo Peck & Co., New Haven, Conn.

American Watchmaker and Jeweler. By J. Parish Stelle. Jesse Hanev & Co., 119 Nassau st., New York, Price 25 cents.

Millwrights can make favorable arrangements for sale of best water wheel in use. Address Peekskill Man'f 't Co., Peekskill, N. Y

For sale-barrel machinery, nearly new, for whiskey and coal oil barrels. Address postoffice box 290, Cincinnati, Ohio.

For Blanchard's spoke lathes, address Exeter Machine Works, Exeter. N. H.

Portable pumping machinery to rent of any capacity desired, and pass sand and gravel without injury. Wm.D. Andrews & Brother,

from fuel in the generation of steam, and it consists in forcing the gaseous	J.C. N., or Minn.—" will you inform me of the length of a	414 Waterst., New York.
products of combustion, separated from the ashes, into and through the water in the boller.	rifle barrel having the greatest range, and also why a breech loading gun has a greater range than a muzzle loading one?" We cannot give you	Adams' air cylinder graining machines for painters and all manufacturers of painted ware. Machine guaranteed. Send stamp for cir-
SOFA BEDSTEADB. L. Southack, New York cityThis invention relates to a new sofa bedstead, which is provided with a folding back, hinged to a	the absolute length of a rifle barrel that projects a ball the furtherest, as there must be taken into consideration the weight and form of bullet, the	cular to Heath, Smith & Co., 400 West 15th st.
to a new sola becasteat, when us provided with a folding back, hinged to a sliding seat, the back, when turned up, resting against the back edge of the arm rests or head bards of the same, so as to be in a proper position. The invention consists in such an arrangement of all parts, that the folding softa	the amount of powder used, and the resistance offered to erratic move- ment by the thickness of the walls of the tube or barrel. On all and $e_{x}ch$ of these points experts disarree, not however, on general principles, but	For descriptive circular of the best grate bar in use, address Hutchinson & Laurence, No. 8 Dey st., New York.
back, which is hinged to the sliding seat, and which forms, together with the seat, thebe i bottom will, when turned up, bear or rest against the back edge of the arm supports or headboards, to which it may be secured.	on the difference of their experience. It is certain, however, that the bar- rel and is rifling are intended to give direction to the bullet and to con- fine the power imparted by the liberation of the gasses, until this direc- is assured. When these are assured the beneft of the barrel's length	Manufacturers wanted to build Ball's Ohio reapers and mowers. For terms and territory apply to J. A. Saxton, Canton, Ohio.
PICK AXESMorgan Gale, San Antonio, MexicoThis invention has for its object to improve the construction of pick axes, so as to make them stronger,	ceases. In common use it is found that a barrel of twenty inches is as	N.C. Stiles' pat. punching and drop presses, Middletown, Ct.
constructed in the ordinary manner.	good as one of thirty-two inches in length. We have seen the ordinary Colt's pistol, navy size, barrel eight inches in length, project a ball accur- ately a distance of three hundred yards. Would a barrel of thirty-two	For sale—the patent right, in Great Britain, for perforated saws. The manufacture of these saws is now firmly established in the
F SAWING MACHINEF.M.Schaeffer, Blooming Grove, KansasThis inven- tion consistent an improved arrangement of guides for the saw; also, an	inches do bitter? In regard to your second question, the breech loading gun has a greater range merely because there is less " windage," as the ball bas not been loosened by being forced down the grooves it must again	United States, and they are rapivly taking the place of all other solid saws. Apply to J. E. Emerson, Trenton, N. J.
improved means for acjusting the saw to work either in a horizontal or ver- tical plane; also, an improved means for holding a log while being sawed to proven these means and also in a prime sawed to	traverse.	Prang's American chromos for sale at all respectable art stores. Catalogues mailed free by L. Prang & Co, Boston.
prevent the same from rolling, and also, in an improved means for support- ing the block which is being sawed off.	J. P. C., of OhioNo step or foot bearing of metal is equal to good oak or rock maple for a turbine wheel. These woods are used as	For breech-loading shot guns, address C. Parker, Meriden, Ct.
HEAT RADIATOR.—George M. Woodward, New York city.—The object of this invention is to provide a hea' radiator of that class in which steam is in- troduced at the bottom, said steam rising to the top of the heater and de-	horses. Wood bearings are also used for the stern supports of propeller	Winans' anti-incrustation powder, 11 Wall st., N.Y. 20,000
to the top of the neater and de	BCrewB.	references. No foaming. No injury. 12 years in use. Imitacons plenty.

## Improvement in Power Punching Presses.

Twenty years ago the punching press existed only in a very crude form, and was used but seldom, and then only for a special class of work. Now it is an elaborate and workmanlike machine, one of the most valuable tools the machinist uses, and is applied to many purposes. Small forgings are finished by it, and their substance condensed and surfaces smoothed, while its power of rapidly cutting out and fashioning blanks of almost all forms, has scarcely a limit.

stroke of the pitman, D, and the consequent throw of the punch stock. E is the worm meshing with the teeth on the eccentric.

Fig. 5 is a perspective view of the parts of the machine containing the stop or lock motion, and Fig 6 is a vertical longitudinal section of the same. In both figures the same letters of reference are used. A is the hub of the driving wheel, turning free on the shaft, B, and locked or keyed to the shaft by the spring bolt, C, which is held by means of Fig. 1 is a perspective view of a powerful back geared the vertical catch, D, the top or head of which is crescent



Singular Preservation.

The London Herald tells the following singular and touching story :

Not many years since, certain miners, working far underground, came upon the body of a poor fellow who had perished in the suffocating pit forty years before.

Some chemical agent to which the body had been subjected-an agent prepared in the laboratory of nature-had ef. fectually arrested the progress of decay. They brought it upto the surface, and for a while, till it crumbled away through exposure to the atmosphere, it lay there the image of a fine sturdy young man. No convulsion had passed over the face in death-the features were tranquil; the hair was black as jet. No one recognised the face-a generation had grown up since the day on which the miner went down his shaft for the last time. But a tottering old woman, who had hurried from her cottage at hearing the news, came up, and she knew again the face which through all these years she had never quite forgotten. The poor miner was to have been her husband on the day after that on which he died. They were rough people, of course, who were looking on ; a liberal education and refined feelings are not deemed essential to the man whose work is to get up coals or even tin; but there were no dry eyes there when the gray-headed old pilgrim cast herself upon the youthful corpse, and poured into its deaf ear many words of endearment unused for forty years. It was a touching contrast; the one so old, the other



B



### STILES' PATENT IMPROVED PUNCHING PRESS.

the sliding block, or punch stock, and at the other end with a toothed eccentric on the main shaft, the teeth being cut around a portion of its periphery. These teeth engage with a worm turned by a hand lever, the device being seen in section in Fig. 2. By this means the stroke of the punch may be graduated, and governed to the minutest fraction of an inch.



end edge allowing the end of bolt, C, to pass between it and the shaft or outside, as the position of the catch, D, may determine, which position is governed by the action of the treadle seen in Fig. 1, and operated by the foot of the workman. Spiral springs on bolt, C, and catch, D, assist in the operation of the stop motion. So long as the workman presses upon the treadle, the bolt keeps the driving wheel



machine. The pitman on the front connects at one end with | shaped, its inner surface fitting the shaft, and its reduced | so young. They had both been young those long years ago; but time had gone on with the living, and stood still with the dead.

## Workingmen as Students.

Professor Tyndall, who occupies the chair of natural philosophy at the Royal School of Mines in London, reports some striking results from the delivery of evening lectures, a plan which was set on foot a few years ago, partly with a view to meet, in some degree, the wants of schoolmasters. On alternate evenings the lectures are to workingmen, and these he says are far more attentive than the others. "I have pur posely," he observes, "looked round the filled benches in search of a yawn. I never once saw it among these workingmen." The professor further states: "I often receive letters which are perfectly touching, in the name of twenty workmen or thirty workmen, in such and such a factory, expressing their intense disappointment at not being able to get tickets for the lectures." As soon as an advertisement appears, stating that 600 tickets will be disposed of at a certain time, the demand is such that tickets are sold as fast as they can be given out. Those who thus attend are described as being "for the most part, bond fide workingmen ; hard-handed, earnest people, who have no time to devote to study save the time which they take at night."

#### The West Side Elevated Railway.

The recent meeting of the directors of the West Side Elevated Railway Co., resulted in a very favorable exhibit of the e prospects of the road. Proposals for the iron for further construction were received, and some large conin connection with the shaft, and the punch is operated, but tracts completed. The reports of surveys for the fixing of the when he releases the pressure of his foot the catch, D, is remainder of the line were submitted, and referred to the forced upward by its spring, and the bolt or key, C, engages chief engineer with power. The section already completed with the other surface of the head of D and releases the will be put in operation about the first of November; and all key bolt, leaving the driving wheel to revolve freely on its legal difficulties having been removed, the company will proshaft without imparting motion to the punch. The relation ceed to raise money as rapidly as possible for the completion of the punch and the key bolt is arranged so that the punch of the road. must stop always at the highest point of its stroke, so there

Figs. 3 and 4 represent the Stiles' patented device for graduating the stroke of ordinary crank presses, by which means the stroke may be graduated to the sixty-fourth part of an inch. The eccentric marked G. has a series of semicircular holes on its periphery, engaging, when in position with similar holes in the block, H, the eccentric being moved on the shaft by means of a pronged wrench fitting the holes seen on its face, and being held in connection with the block by a pin fitting the two semicircular engaging apertures. In Fig. 3 the eccentric is seen seated in the block, and in Fig. 4 both the eccentric and block are seen removed. The face plate, or cover, I, in either case is raised.

This device is the principle, and one of its adaptations to the adjustment of the stroke of the punch, the toothed eccentric, however, in Fig. 2 is an improvement on the original design, which was described and illustrated on page 305, Vol. X., current series of SCIENTIFIC AMERICAN.

In Fig. 2, A is a tightening nut on the end of the worm ALASKAN and British Columbian birds are said to be numershaft, the shaft being worked by the handle, B, by which the ous in variety and most beautiful in plumage. Two thouseccentric, C, is turned on the shaft, F, thus governing the and specimens are on their way to this country for museums.

been put in operation.

ELECTRICAL FREAKS.-A tinsmith in Reno, Cal., during a recent thunder storm noticed that a lad in his employ seemed to be afraid of his tools. Upon questioning the boy, he complained that something strange was the matter with them. patents, procured through the Scientific American Patent The tinsmith upon attempting to take up the large scissors Agency, dated January 26, 1864 ; January 30, 1866 ; re-issued which the youngster had dropped, received a shock that near-December 26, 1865, and April 2, 1867. Manufactured by ly prostrated him. Immediately after little balls of fire began hopping about over bits of iron, and making finally a a united assault upon the coal furnace, whereupon the "boss" and his apprentice wisely and speedily vacated the premises until the subsidence of the storm.

can be no chance of cutting off fingers by the continued ac-

tion of the press after the treadle and its connections have

This machine and its parts are the subject of several

N. C. Stiles, who may be addressed at Middletown, Conn.