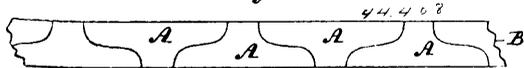


No. 44,408. Art or Process of Rolling Blanks for making Socket Shovels, Spades, Scoops, etc. (*Art ou procédé de laminage des blancs pour faire des pelles, bûches, escopes, etc., à douilles.*)

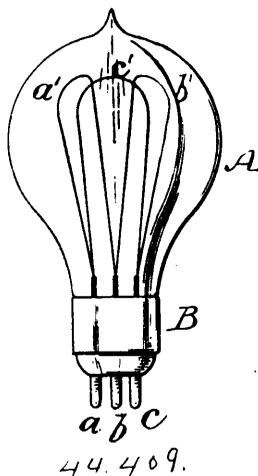
Fig. 1.



John McMurchy, Gananoque, Ontario, Canada, 5th October, 1893; 6 years.

Claim.—The art or process of rolling blanks for making socket shovels, spades, scoops, &c., from T-shaped blocks of steel or other metal, which consists in first thinning the narrower arm or tang portion *a*, from opposite sides between suitably grooved rolls, whereby the disturbed metal will be carried towards one end of the block, then further thinning said tang portion by a second pass between said rolls having a suitable groove, whereby the disturbed metal will be forced in an opposite direction to the first pass, and finally thinning the blank uniformly between a smooth or plain portion of said rolls, the thin or tang portion presented first to the rolls, whereby the block will be elongated to the length required for the socket, and the other portion elongated by the same pass or passes to the required length for the blade of the shovel, spade, scoop, &c., substantially as set forth.

No. 44,409. Incandescent Lamp. (*Lampe incandescente.*)



Johannes H. F. Gorges, Berlin, Germany, 5th October, 1893; 6 years.

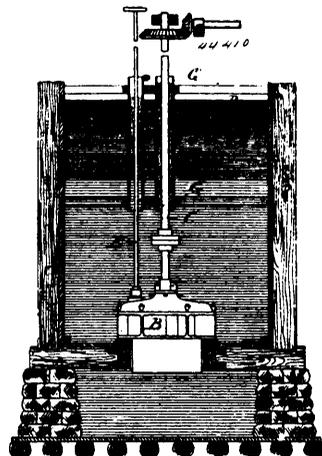
Claim.—1st. An incandescent lamp provided with three terminals connected with each other through three independent carbon filaments of equal resistance. 2nd. An incandescent lamp provided with an uneven number of terminals and an equal number of carbon filaments of equal resistance, connected to said terminals in multiple in pairs, and with each other in multiple series. 3rd. An incandescent lamp provided with a plurality of independent carbon filaments of equal resistance and a plurality of terminals equal in number to the filaments and connected with each other through said filaments. 4th. An incandescent lamp provided with a plurality of carbon filaments of loop form, having two ends, and of equal resistance, a plurality of terminals equal in number to the filaments, and said terminals connected with each other within the lamp by connecting each two of the terminals by a filament.

No. 44,410. Art or Mode of Preventing Surface Ice Stopping Water Wheel Shafts. (*Art ou mode d'empêcher la glace de surface d'arrêter les arbres de couche des roues d'eau.*)

William Faint, Peterborough, Ontario, Canada, 5th October, 1893; 6 years.

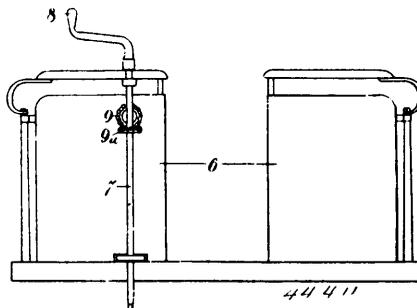
Claim.—1st. The art or mode of preventing the formation of surface ice around the shaft of submerged water wheels by surrounding the shaft with a column of oil to a depth from the surface of the water below the action of frost, said oil confined in a jacket or tube partially submerged and enclosing the shaft, whereby the column of oil is supported by the water within or below said jacket or tube, substantially as set forth. 2nd. The combination with a flume, a submerged water wheel and its partially submerged shaft and gate rod, of a jacket or tube surrounding said shaft or rod, and an oil

column H, filling or partially filling the space between said jacket and the shaft or rod, whereby said oil column is supported by its



own buoyancy in the water, as set forth, for the purpose described. 3rd. The combination with a submerged wheel or turbine, having a vertical driving shaft partly submerged, of a column of oil surrounding said shaft from the surface of the water to a depth below the action of frost, and an exterior jacket or tube enclosing the oil column, to prevent dispersion by the flow of water into the wheel or through a flume, as set forth.

No. 44,411. Magnetic Car Brake. (*Frein de char magnétique.*)



William E. Dillon, Toronto, Ontario, Canada, 5th October, 1893; 6 years.

Claim.—1st. In a magnetic car brake, the combination of an electro magnet suspended to the car, the running gear of the car, means for magnetizing the electro magnet, and means for cutting off and on the electric current to the electro magnet, substantially as set forth. 2nd. In a magnetic car brake, the combination with the car wheel comprised of a hardened body and a soft metal flange, an electro magnet suspended to the car in close proximity to the soft metal flange whereby the electro magnet can magnetize the car wheel, means for magnetizing the electro magnet, and means for cutting on and off the electric current to the electro magnet, substantially as set forth. 3rd. In a magnetic car brake, the combination of the car wheel comprised of a hardened body and a soft metal flange, an electro magnet suspended to the car in close proximity to the wheel flange, a switch located at the front of the car mounted upon a spindle, a bevelled gear mounted upon the spindle, a brake standard, a bevelled gear mounted upon the brake standard, a connection between the switch and the electro magnet whereby the electric current can be cut on and off to the electro magnet, substantially as set forth.

No. 44,412. Paper Pulp. (*Pâte à papier.*)

Henry James Bird, Hoboken, New Jersey, U.S.A., 6th October, 1893; 6 years.

Claim.—1st. The method herein specified of utilizing the contents of the paunches of slaughtered animals, consisting of utilizing the gastric juices in the disintegration of the vegetable fibre for the production of paper stock, substantially as set forth. 2nd. The method herein specified of disintegrating vegetable substances and separating the fibre for paper stock, consisting in subjecting such vegetable material to the action of gastric juices in the presence of sufficient heat to render such gastric juices efficient in the disintegration of the material, and washing out the other substances for the separa-