

RECENTLY PATENTED INVENTIONS.

Pertaining to Apparel.

SWEAT-BAND.—T. J. ASCH, New York, N. Y. The invention refers to hats and other head coverings, and its object is to provide a new and improved band for head coverings, notably straw hats, soft and stiff hats and the like, and arranged to bear softly on the head of the wearer and to readily conform to the configuration of the head.

Heating and Lighting.

THERMOMETER AND OTHER SIMILAR DEVICE HAVING SATURATED VAPORS.—J. B. FOURNIER, 62 Quai des Orfèvres, Paris, France. The invention relates to improvements in devices in which the part sensible to heat incloses a saturated vapor the tension of which has for its purpose to act as a manometer or other member sensible to the pressure, located at any distance from the said part sensible to heat. It is closely associated with other inventions described in Mr. Fournier's formerly filed applications. The purpose of the said improvements is to locate on a predetermined length the part of the apparatus which is sensible to heat.

Of General Interest.

LIGHTNING-ROD TERMINAL.—J. P. TURNER, New York, N. Y. The object here is to provide for the speedy dissipation of the current, whereby danger of the rod being overcharged and melted is avoided. This is accomplished by passing the rod through a substantially horizontally disposed tapering perforated body filled with charcoal and having branch conductors leading from its enlarged end. The perforations permit the water to seep through, maintaining the terminal in a high state of conductivity.

SCALE.—J. W. FREE, Swissvale, Pa. In this case the invention pertains to scales used for determining sizes of tools, wire, sheet material, and the like, the more particular object being to provide a construction having intelligible characters placed thereon and admitting of a large variety of general uses.

AIR-CUSHION FOR HORSESHOES.—J. H. FAWKES, Detroit, Mich. This invention comprises a substantial ring shaped shoe of suitable material, secured to the hoof of the horse by the usual nails. A clamping ring fits within the shoe, the ring being secured to the shoe by screws. A resilient bag is arranged within the clamping ring, and a cover of leather or fabric material is placed over the bag, the edges of the cover being inserted between the ring and the shoe.

Machines and Mechanical Devices.

COMBINATION-LOCK FOR DOORS.—D. E. LOMBARD, New York, N. Y. The invention pertains to certain improvements in combination locks for doors, and more particularly to that type of lock in which the door may be opened from either side by independent operating members, one of which includes a mechanism which must be operated in a particular manner in order to withdraw the lock bolt.

WOODWORKING-MACHINE.—C. L. HARTWELL, Chicago Heights, Ill. The invention contemplates a machine for turning irregular or non-circular forms, the machine being more especially designed for shaping the eye portion of ax and other handles, although it is not limited to this particular operation, as it may be used with advantage in the shaping of other articles.

CARVING-MACHINE.—W. F. MANGELS, New York, N. Y. This machine accurately and quickly reproduces in wood or other materials a plurality of parts simultaneously, according to a pattern. When the parts are in position and the motors running, the operator takes hold of the holder and moves the pointed head of the tracer toward the pattern, so that the revolving carving tools come in contact with and cut the blocks, the tools used being roughening tools, to give an outline shape to the block according to the pattern.

SHAFT-POLISHING MACHINE.—J. S. GRIFFIN, Roslyn, Wash. In the present patent the invention has reference to machinery for use in polishing shafting; and the object of the improvement is the production of a machine of this class which is simple in construction, and which is provided with automatic means for feeding the shaft to the rolls.

MECHANICAL MOVEMENT.—W. SULLIVAN, Hot Springs, Ark. The object of this inventor is to provide a new and improved mechanical movement for converting reciprocating motion into a rotary motion in a very simple and effective manner. The movement is durable in construction, composed of comparatively few parts, and not liable easily to get out of order.

EARTH SCRAPER.—J. E. TUCKER, Jennings, Kan. The invention relates to that class of scrapers and excavators which are employed for handling or transferring masses of earth, sand and other material from one point to another along the surface of the earth by being dragged back and forth between two points from the action of cables winding on spools which are turned by separate frictions and so constructed that either may receive power separately while the others are released.

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.



HINTS TO CORRESPONDENTS.

Full hints to correspondents were printed at the head of this column in the issue of August 8th, or will be sent by mail on request.

(10840) W. M. asks: Please inform me the meaning of the term three-phase or single-phase, speaking in this case about alternating electric currents. Kindly explain the difference in the two. A. When a dynamo produces three e. m. f.'s 120 deg. apart, three currents result with suitable wiring. Such a current is three-phase. If but a single e. m. f. is produced, the resulting current is a single phase. Full explanation of the features of alternating currents, and all electrical currents and apparatus, is to be had in Sloane's "Handy Book of Electricity," which we send for \$3.50, and which is indispensable to workers with electricity.

(10841) G. H. H. says: Will you kindly tell in your Notes and Queries column why the sun and the moon when they appear near the horizon are apparently so much larger than when farther up in the sky? A. The great apparent size of the sun and the moon when seen near the horizon is due to the fact that we contrast them in this position with terrestrial objects, and their greater distance impresses the mind with their great size. With a measuring instrument the optical illusion vanishes. The moon measures slightly larger when high in the sky than when on the horizon, since she is then about one-sixtieth nearer the eye than when on the horizon. For this see Todd's "New Astronomy," which we send for \$2 by mail.

(10842) A. S. asks: If a cubic hole were dug in the center of our earth about 8 x 8 x 8 feet, and a man could be in the hole, how would he know whether his head were up or down, or he were lying down or standing upright? A. If a man were in a hole at the center of the earth he would not know which direction was up or down; there would be no such thing as direction. This would be the case, without reference to the size of the hole, even if it were thousands of miles across. If the earth were hollow, a body anywhere in the hollow would be equally attracted in all directions and would lose the sensation of weight or gravitation. All directions would be the same to him.

(10843) A. J. Z. says: 1. Is there any method known, theoretical or practical, by which intense heat may be transmitted a distance of say twenty feet by other means than that of heating an agent and transferring the heated agent to the desired spot? A. There is probably no way in which an intense heat may be transmitted twenty feet from the source of heat. The heat of the sun may be reflected, but any terrestrial heat is too feeble for such transmission. 2. When a sunbeam is reflected by a mirror, how much, if any, of the heat is reflected with the light? A. The heat of the sun's rays is always reflected with the light. What part of the whole amount is reflected depends upon the material of the reflector. In this matter quite different results have been reached by different investigators, so that any figures must be taken with allowance, as being to a degree uncertain. All agree that lampblack reflects no heat. Water too may be taken to reflect none. Glass reflects about 10 per cent; polished iron about 75 per cent; polished copper about 85 per cent; polished gold and silver about 97 per cent. The solar motor in California is run by steam produced by boiling water with the heat of the sun which has been reflected by glass plates upon the boiler.

(10844) S. G. B. says: Am I not right in stating that the revolution of the earth on its axis gives the Dipper the appearance of moving around the north star in twenty-four hours? A. The rotation of the earth upon its axis causes all the stars of the sky to appear to move around the north and south poles of the sky each day. The Dipper has this motion with all the other stars. The rotation of the earth is from west towards the east, and the stars appear to move from east to west, rising in the east and setting in the west. Those stars near the north pole with us do not set nor rise, but move toward the east in the lower part of their motion and towards the west in the upper part.

INDEX OF INVENTIONS

For which Letters Patent of the

United States were Issued

for the Week Ending

August 25, 1908,

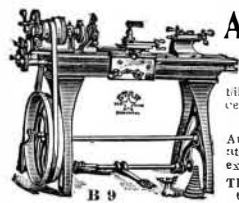
AND EACH BEARING THAT DATE

[See note at end of list about copies of these patents.]

Addressing machine, C. A. Belknap..... 896,702
Advertising device, wheel, J. P. Bergeron..... 896,885
Advertising directory, S. H. Martel, Jr..... 896,925

Table listing inventions and their patent numbers, including items like Agar-agar-cascara product, Air brake system, Air ship, dirigible, etc.

Table listing inventions and their patent numbers, including items like Electric snap switch, Electric wire conduit, Electrical apparatus, etc.



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Table listing various mechanical and industrial items with their corresponding prices, such as 'Music sheet, perforated, H. K. Sandell', 'Musical instrument, automatic, R. B. Fowler', 'Needle, turning, S. H. Ferrier', etc.

We Start You in the Jewelry Business. Write me today. Let me explain how you can become an expert watch repairer in three months—making \$25 to \$50 a week—and own your own jewelry business. CHARLES F. ELMORE, Principal Correspondence College of Watch Making, Rogers, Thurman & Co., Props., 48 Michigan Ave., Chicago.

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