

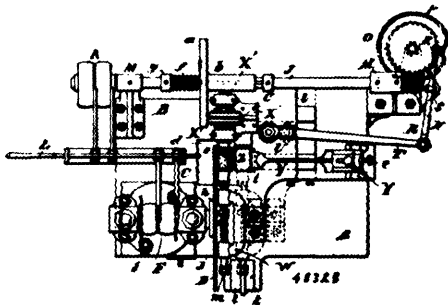
moved, substantially as described. 5th. The combination of a valve casing having a gas inlet, and a flame opening, substantially as described, with a valve having two chambers or pockets, both adapted to receive a charge of gas from the inlet, as the valve reciprocates, and one also adapted to communicate with the flame opening, substantially as described. 6th. The combination of the cylinder, the valve casing communicating with the cylinder ports at the opposite ends, and having a gas inlet, with a reciprocating valve in said casing, having two chambers or pockets at each end, all of said pockets successively receiving gas from said inlet, as the valve reciprocates, substantially as described. 7th. The combination of the cylinder, the valve casing communicating with the cylinder ports at each end, and having a central gas inlet, and flame openings at each side of said inlet, with a valve having two chambers or pockets at each end, all adapted to receive gas from the single inlet during the reciprocation of the valve, and one of the pockets at each end adapted to transfer gas to the cylinder port, and the other to carry gas first over the flame opening where it is ignited and then to the port, thereby igniting the gas in the cylinder, substantially as specified. 8th. The combination with a gas engine cylinder of means for dispensing the heat thereof by radiation and air circulation constructed, substantially as herein specified. 9th. In combination with an engine cylinder, metallic casing therefor formed of a layer or layers of reticulated or woven metal or similar good conductor of heat, whereby a large radiating surface and numerous air passages or spaces are formed for the dispersion of heat, substantially as herein specified. 10th. In a gas or oil engine, the combination with the cylinder, or a casing formed of layers of wire gauze or reticulated metal and rods or tubes interspersed between the layers, substantially as and for the purposes herein described. 11th. In a gas or oil engine the combination of the main valve, its rod, a bevelled plate or disc on said rod, and a spring arranged to force said rod outward to meet the valve, with the rotatable governor arms having their short ends impinging against said disc, and adapted to force the rod inward when shifted by centrifugal movement, substantially as set forth. 12th. The combination with the main valve, its rod, the spring forcing said rod outward to meet the valve, and the bevelled disc on said rod, with the rotatable cap, the cranked governor arms pivoted in said cap and adapted to impinge against said disc when the governor balls or weights are thrown, against the centrifugal force, the spring being adapted to force the rod outward and press the disc against the arms when the speed slackens, substantially as described. 13th. The combination of the gas chamber, the valve therein, the valve rod journaled in a stuffing box in said chamber, and in a sleeve exterior thereto, the spring in said rod within the sleeve, the disc on the outer end of the rod, the rotatable cap enclosing the outer end of the rod and the cranked levers pivoted within said cap, having their short arms impinging against said disc, and their long arms weighted, all substantially as described. 14th. In an engine the combination of the piston rod and pitman, and anti-friction roller bearing supporting said piston rod and pitman upon the guide-ways, substantially as described. 15th. The combination of the pitman, piston rod and guide-ways, with an anti-friction roller bearing, movable connection between the piston-rod and guide-ways, substantially as described. 16th. In an engine a piston-rod and pitman provided with a roller adapted to operate between guide-ways, substantially as described. 17th. In an engine the combination of a pitman and piston-rod, and a roller provided with axle or journals and operating in guide-ways, substantially as described. 18th. In an engine the combination of the guide-ways, the piston-rod and pitman with a roller adapted to move in slots or grooves in guide-ways, and to support the connected ends of pitman and piston-rod, substantially as described. 19th. In an engine the combination with the piston-rod, pitman and guide-ways, and rollers adapted to move in said guide-ways for reducing the friction caused by the reciprocating movement of the piston-rod, and to support the connected ends of the piston-rod and pitman on the guide-ways, substantially as described. 20th. The combination of the piston-rod, pitman and guide-ways, with the cross-head having roller bearings in the guide-ways, substantially as described. 21st. The combination of the guide-ways, the cross-head, the rollers playing in slots in the cross-head and supporting it on the guide-ways, and the piston and pitman connected to said cross-head, substantially as described.

No. 48,328. Machine for Grinding Corks into Shape.
(Machine pour router les bouchons.)

John Eisenhardt Howard, London, England, 4th March, 1895; 6 years.

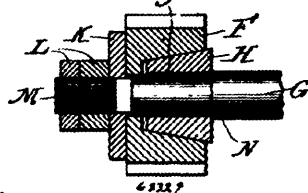
Claim.—1st. In a machine for grinding corks into shape, having a reciprocating slide such as V, adapted to approach towards and recede from a suitable abrading surface in the manner and for the purposes hereinbefore described, the combination therewith of a suitable bearing or support carried on said slide in which is journaled the spindle of the cork gripping chuck, which is to be driven intermittently, a friction wheel or wheels fixed on said spindle, and a friction disc or wheel mounted (at right angles or thereabouts to the first named friction wheel) on a continuously revolving shaft in such manner as always to revolve with said shaft while free to slide lengthwise thereon, and a spring adapted to keep the side face of said disc pressed into the path of advance of said first-named friction wheel and allow the latter to push the said friction disc before it along

said shaft to thus impart rotary motion to the mechanically-held cork blank while same is in contact with the abrading surface. 2nd. A machine to automatically seize hold of the piece of cork (cork blank) and then very quickly rotate same and slowly advance same to be thus ground into shape, having a reciprocating slide



such as U, adapted to advance towards and recede from any suitable abrading surface in the manner and for the purposes hereinbefore described, suitable bearings or support carried on said slide in which is journaled the spindle of the cork gripping chuck, a friction wheel or wheels such as c, fixed on said spindle in combination and acting in conjunction with a friction disc or wheel such as a, free to slide lengthwise on its shaft J, and adapted to revolve in a plane at right angles to said friction wheel c, and to quickly rotate the latter when intermittently forced into contact therewith, substantially in the manner and for the purposes hereinbefore described and illustrated in the drawings hereto annexed. 3rd. In a machine for shaping corks by grinding the improved means of imparting intermittent rotary motion to the mechanically held cork, substantially in the manner and for the purposes hereinbefore described. 4th. The improved machinery for grinding corks into shape, combined and arranged to act, substantially in the manner and for the purposes hereinbefore described and illustrated in the drawings hereto annexed.

No. 48,329. Transmitting Mechanism for Threshing Machines. (Mécanisme de transmission pour machines à battre.)



Charles Franklin Goddard, Chicago, Illinois, U.S.A., 4th March, 1895; 6 years.

Claim.—1st. In a threshing machine, the combination of a separator with an engine mounted thereon, a cylinder in the separator, and transmitting device including a slipping connection. 2nd. In a threshing machine, the combination of a separator with an engine mounted thereon, a cylinder in the separator, and transmitting device including a slipping connection comprising two parts held with adjustable pressure upon each other. 3rd. In a threshing machine, the combination of a separator with an engine mounted thereon, a cylinder in the separator, and transmitting device including a slipping connection, said connection comprising a pinion or gear with a dish-shaped recess at one side, and a plug keyed to its shaft and adapted to be forced into said dish-shaped cavity with gear pressure. 4th. The combination of a threshing machine proper with an engine mounted thereon, a cylinder for the threshing, connections between both comprising a rotating shaft, a plug keyed thereon, a dish-shaped gear-wheel to fit over the shaft and plug, a screw threaded outer end of a shaft and nuts thereon bearing against the pinion, whereby the pinion is firmly gripped upon the plug, and can only be rotated under great pressure.

No. 48,330. Brake Adjuster. (Ajusteur de frein.)

Martin E. McKee, St. Paul, Minnesota, U.S.A., 4th March, 1895; 6 years.

Claim.—1st. A take-up device for brakes, comprising a shifting fulcrum block for the rear member of the primary brake-levers, a fixed guide for said fulcrum block, a screw-threaded rod for moving