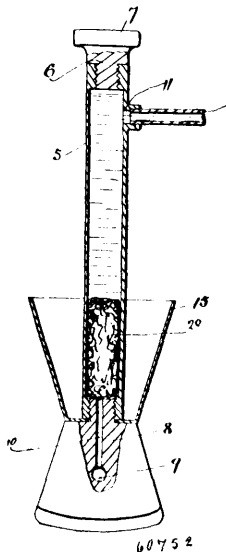
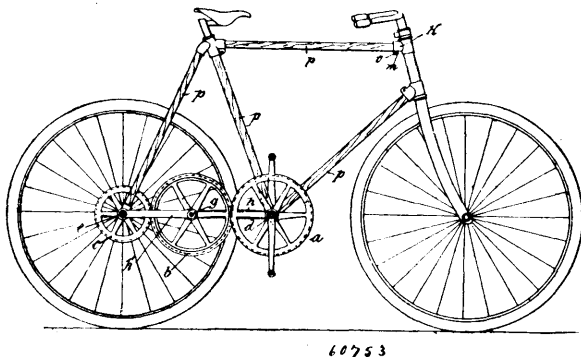


No. 60,752. Mining Implement. (Outil de mineur.)

Findlay Alexander McRae, Montreal, Quebec, Canada, 2nd August, 1898; 6 years. (Filed 26th February, 1898.)

Claim.—1st. A mining implement comprising a hollow shaft, a working tool carried by and located at one end of said shaft, and a gatherer or collector carried by said shaft adjacent to said tool. 2nd. A mining implement comprising a hollow shaft with or without a section of absorbent material therein, an opening to which water or stem pipe may be connected, a perforated working tool carried by and located at one end of said shaft and having a channel extending therethrough from said perforation to the interior of said shaft, and a gatherer or collector carried by said shaft adjacent to said tool, for the purpose set forth.

No. 60,753. Bicycle. (Bicycle.)

Johannes H. W. Schwarz, 104 Adolfsstrasse, Orona, German Empire, 2nd August, 1898; 6 years. (Filed 3rd May, 1898.)

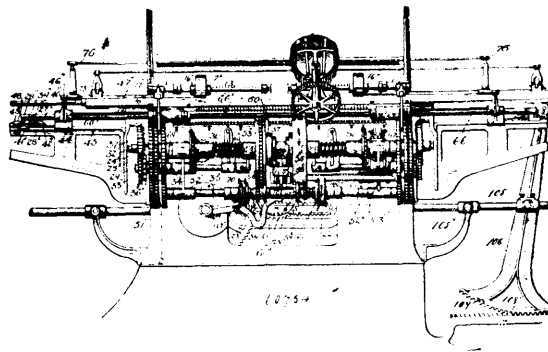
Claim.—1st. A bicycle with wooden frame characterised by the joints being made of split metal collars with threads on the inside pressed together by a bolt passing through ears constructed and arranged substantially as hereinbefore described. 2nd. A bicycle of the kind described characterised by a friction wheels gear, of which wheels the one *b* which intervenes *a* and *c* is covered with india-rubber or other suitably elastic material, constructed and arranged substantially as hereinbefore described.

No. 60,754. Knitting Machine. (Machine à tricoter.)

The Automatic Knitting Machine Company, New York City, assignee of Ellis Spear, Washington, et al., assignee of Frank Wilcomb, Pawtucket, Rhode Island, all in the U.S.A., 2nd August, 1898; 6 years. (Filed 9th April, 1897.)

Claim.—1st. In combination with a rotary sinker-dial, the sinkers carried thereby and operating means for the sinkers, and the main and supplementary presser-wheels adapted to operate on the two sets of needles of a rib knitting machine. 2nd. In combination with a rotary sinker-dial, the sinkers carried thereby, the protecting

shield for the dial and sinkers, and the presser wheel adjustably supported thereby, substantially as described. 3rd. In combina-



tion with a rotary sinker-dial, the sinkers carried thereby, the main presser-wheel arranged centrally of the dial to operate on one set of needles and the two supplementary presser-wheels to operate on the second set of needles and arranged on each side of the dial centre, substantially as described. 4th. In combination with a rotary sinker-dial, the sinkers carried thereby, the main presser-wheel arranged centrally of the dial, the bracket for supporting the same, the two supplementary presser-wheels arranged on each side of the dial centre, the protecting shield for the dial and sinker the said supplementary presser-wheel being supported thereby, substantially as described. 5th. In combination with a rotary dial, the sinkers carried thereby, and the main and supplementary presser-wheels arranged substantially at right angles to each other to operate on the two sets of needles of a rib knitting machine, substantially as described. 6th. In combination, the rotary dial, the sinkers, the shifting cam piece for operating the sinkers to sink the thread, arranged to be shifted by the contact of the sinkers, substantially as described. 7th. In combination the rotary dial, the sinkers, and the shifting cam piece, said cam piece being adjustable, substantially as described. 8th. In combination, the rotary dial, the sinkers, the shifting cam piece, the carrier block therefor and adjusting means, substantially as described. 9th. In combination, the rotary dial, the sinkers carried thereby, a sinker-cam adapted to operate the sinkers on either rotation of the dial, automatically adjustable to present on each rotation of the dial, a high part to operate the sinkers and then a receding low part to allow the sinkers to recede, substantially as described. 10th. In combination the dial arranged to rotate either way, the sinkers and the shifting cam piece for operating the sinkers to sink the thread. 11th. In combination in a knitting machine, the two sets of spring needles, a single series of sinkers, means for advancing and retracting the needles of each set independently of each other, and means for operating the sinkers independently of each other, to sink enough yarn on one set of needles for both sets and the presser-wheels for the two rows of needles to act on the needles of each set independently and successively. 12th. In combination in a knitting machine, the two sets of needles, the sinkers and the cam bars for the needles having each two sets of knitting cams, the cams of each set being arranged to act alternately on each reciprocation of the cam-bars, substantially as described. 13th. In combination, in a knitting machine, the two sets of sliding spring needles, the sinkers and the front and rear cam-bars having two sets of lifting cams, means for causing the needles to advance along the lifting cam of the first set of cams in the front bar and for retracting the needles to cast-off their loops after the needles of the rear row have completed their knitting movement, substantially as described. 14th. In combination in a rib knitting machine, with two sets of spring needles, the cam bars therefor each having two sets of cams, comprising the cam surfaces for advancing and partially retracting the needles of the rear row on each stroke in advance of the forward movement of the front needles, and cam surfaces completing the retraction of the said rear needles in advance of the complete retraction of the needles of the front row, substantially as described. 15th. In combination in a knitting machine, the two sets of needles, the sinkers, the cam-bars, the two sets of needle cams, and the call-jacks and call-cams for causing the cams of each to act alternately for knitting on each reciprocation of the cam-bars, substantially as described. 16th. In combination the needles, and the cam-bars each having two sets of cams, those of the front bar including the two pivoted pieces adapted to open the needle path at the centre of the sets of cams, the means for operating the said pivoted pieces, comprising the call-jacks and call-cam for directing the needles into the opened cam path, substantially as described. 17th. In combination in a knitting machine, the needles, the sinkers, the cam-bars having two sets of cams, those of the front bar including the pivoted pieces, the call-jacks and