

No. 696,070.

Patented Mar. 25, 1902.

J. McALISTER.

MINING CAR.

(Application filed Oct. 17, 1901.)

(No Model.)

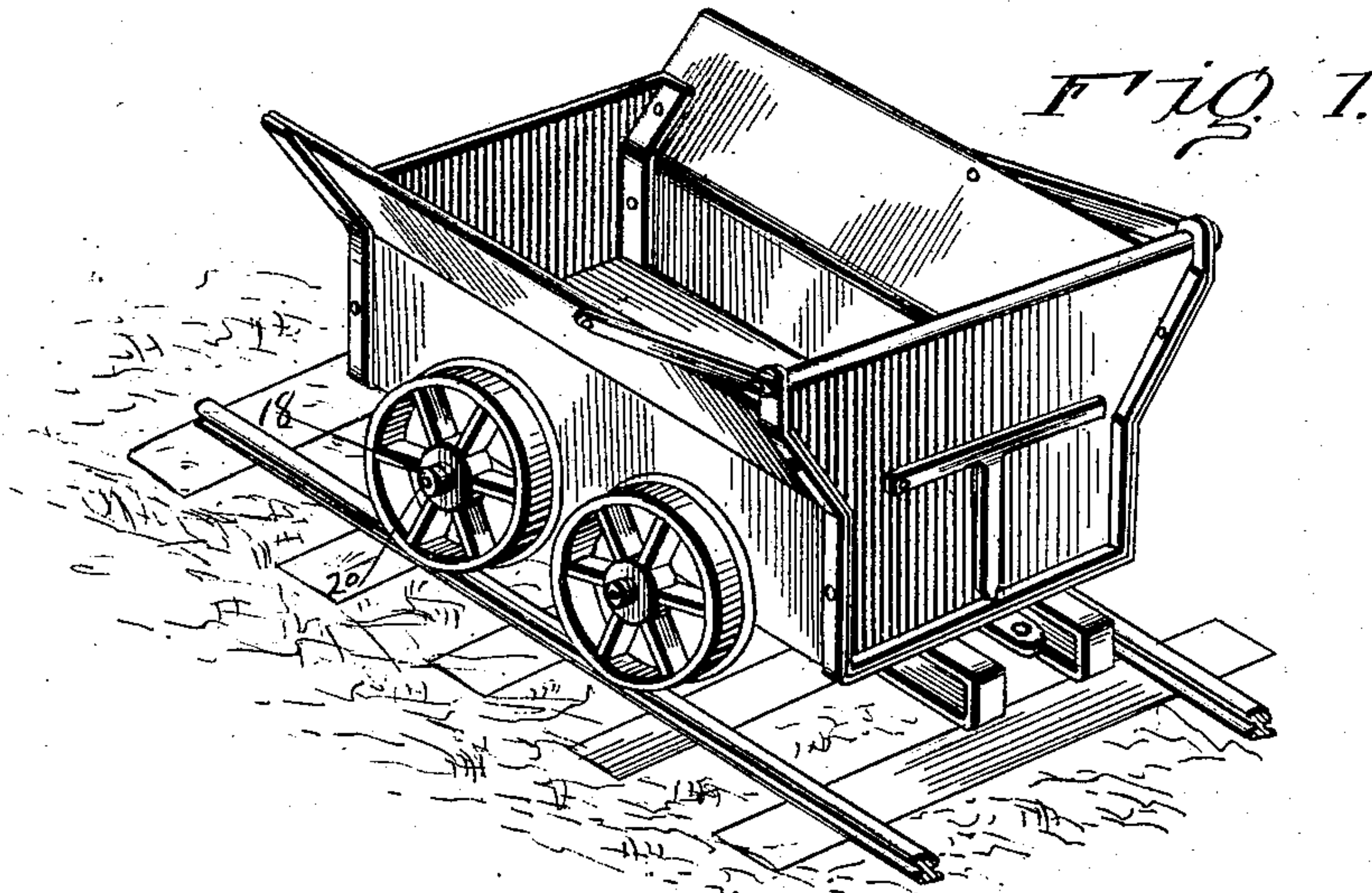


Fig. 3

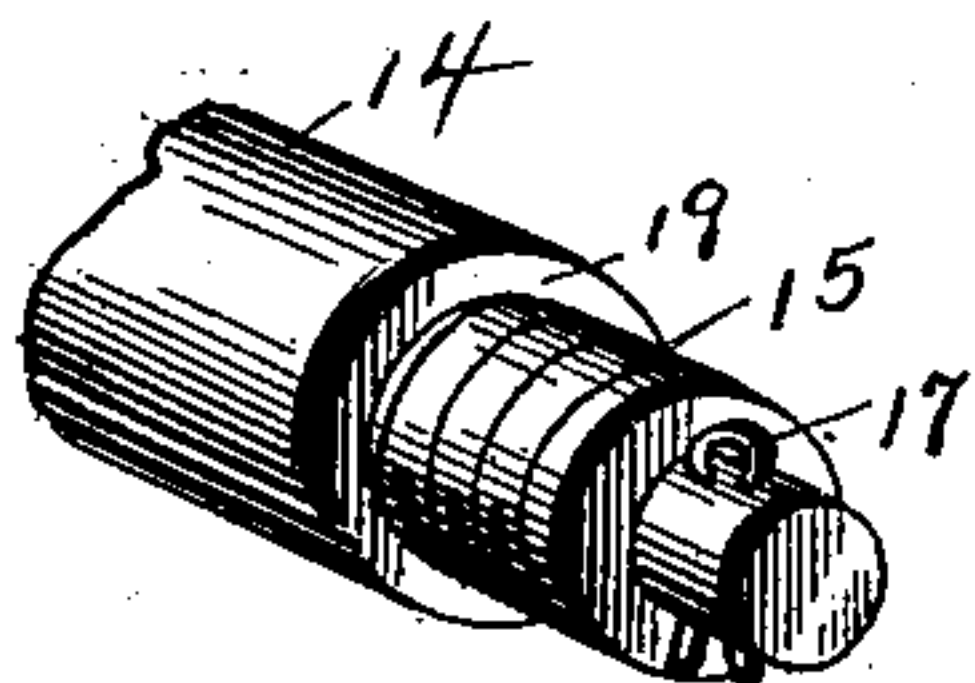
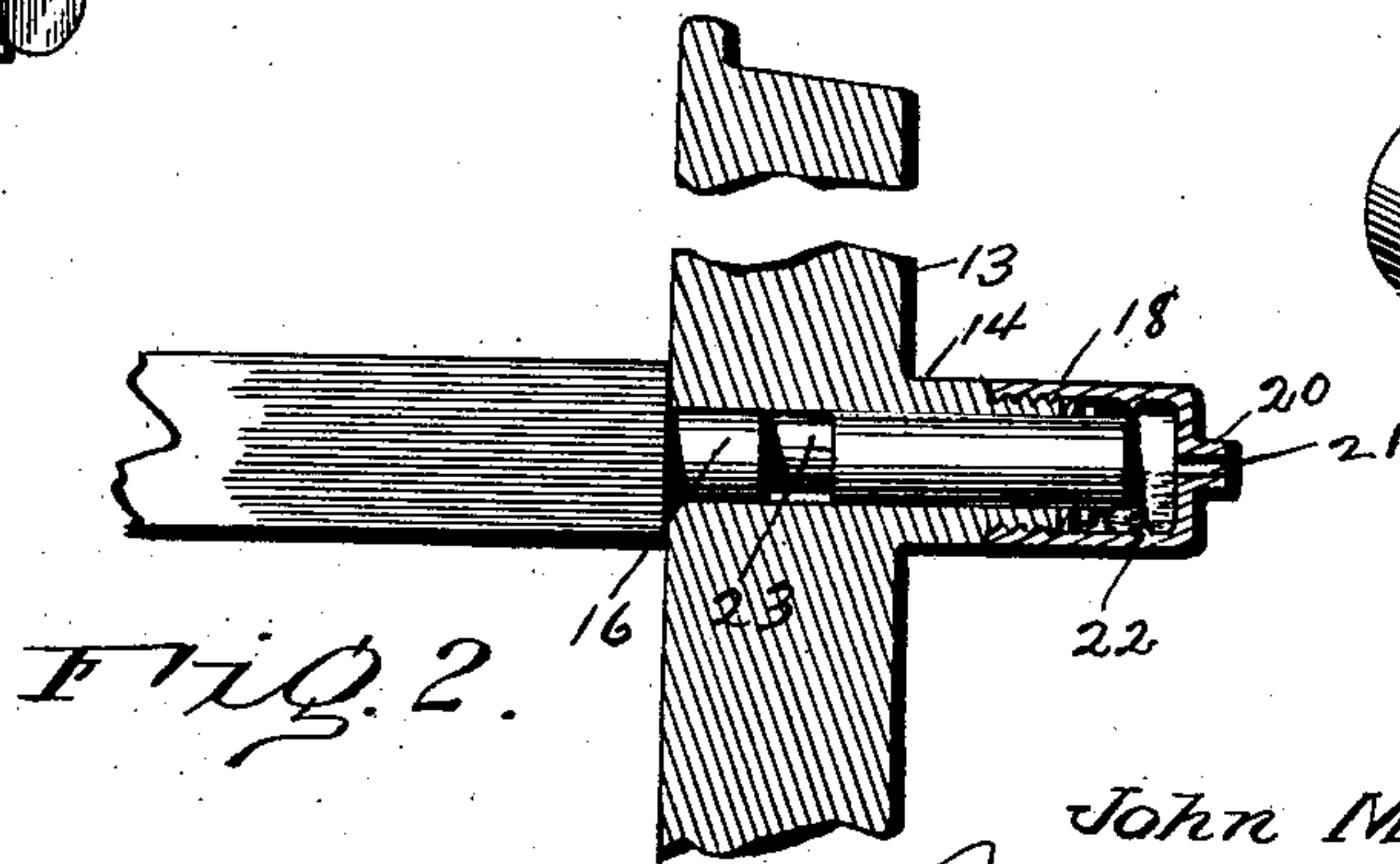
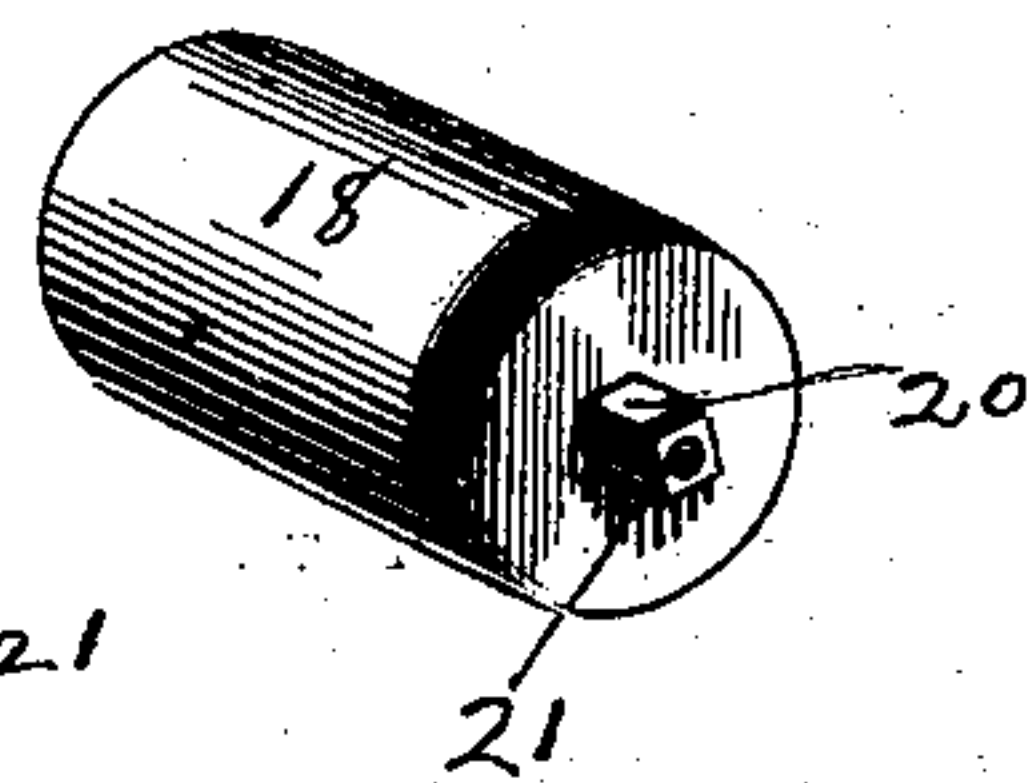


Fig. 4.



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# UNITED STATES PATENT OFFICE.

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## MINING-CAR.

SPECIFICATION forming part of Letters Patent No. 696,070, dated March 25, 1902.

Application filed October 17, 1901. Serial No. 79,021. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN McALISTER, a citizen of the United States, residing at Birwinsdale, in the county of Clearfield and State of Pennsylvania, have invented certain new and useful Improvements in Mining-Cars; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to mining-cars; and it consists of certain novel features of combination and construction of parts, the preferred form whereof will be fully set forth in the following specification. Its object is to provide a reliably efficient form of bearing which will be entirely dustproof and self-lubricating.

Other objects and advantages will be made clearly apparent from the following specification, which shall be considered in connection with the accompanying drawings, of which—

Figure 1 is a perspective view of my metallic mining-car complete. Fig. 2 is a central section of one of the wheels, showing the form of bearing employed by me. Fig. 3 is a perspective detail view showing the end of the axle, while Fig. 4 is a perspective detail view of the cap designed to be received upon the threaded end of said axle, as shown in Fig. 3.

It becomes very desirable and important to provide a car of this character with a dustproof bearing for the wheels, and I therefore form the hub of the wheel 13 with the integral outwardly-extending flange or sleeve 14, the extreme outer end of which is reduced in diameter and threaded, as indicated by the numeral 15 in Fig. 3. It will be understood that the bore of the wheel and of said sleeve will be of sufficient size to receive the journal 16, which latter is of sufficient length to extend slightly beyond the end of the threaded section 15 and is provided with a suitable aperture to receive the linchpin or split key 17, by which the wheel is retained upon said journal. In order to exclude the dust and to provide an oil-receptacle, I fit the cap 18 so that it will be provided with threads upon its inner end adapted to cooperate with the threads upon the section 15, and thus enable said cap to be turned home against the shoulder 19 and leave the outer surface of the cap flush with the outer surface of the sleeve 14, as more clearly shown in Fig. 2. The cap 18 is of

sufficient length to extend outward beyond the end of the axle and the linchpin, and as an oil-tight joint is formed between the shoulder 19 and the inner end of the cap said cap constitutes an oil-receptacle, as clearly illustrated in Fig. 2. The extreme outer end of the cap 18 is provided with a square or octagonal terminal 20 to receive a wrench by means of which the cap is turned tightly home against the shoulder 19 or against a suitable packing or washer interposed between said parts. The extension 20 is provided with a centrally-disposed aperture 21, through which oil may be freely introduced from time to time. The space within the cap 18 may thus be filled half full of oil without the liability of the oil escaping or running out of the aperture 21, though, if preferred, a greater quantity of oil may be introduced and retained therein by inserting a suitable plug within the aperture 21, as will be obvious.

The inner end of the cap 18 is provided with a spirally-disposed rib 22, so formed that the oil will be directed inward by said thread during the rotation or use of the wheel. By the arrangement of the thread or spirally-disposed rib 22 the oil will thus be fed toward the axle and will find its way inward, and thus lubricate the entire extent of the surface of the journal. At a point upon the journal preferably near the middle portion of the wheel I form a circumferential groove 23, adapted to become filled with grease or oil, and thus prevent the free passage of the oil to the inner end of the journal, and thus guarding against loss thereof.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

In a car-truck, a wheel having an outwardly-extending sleeve; a journal extending through said wheel and having means to hold the wheel in place thereon, in combination with a cap 18 fitting over the extended end of said sleeve and said journal and provided with a spirally-disposed rib upon its internal surface to direct the oil normally inward, all combined substantially as specified and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN McALISTER.

Witnesses:

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