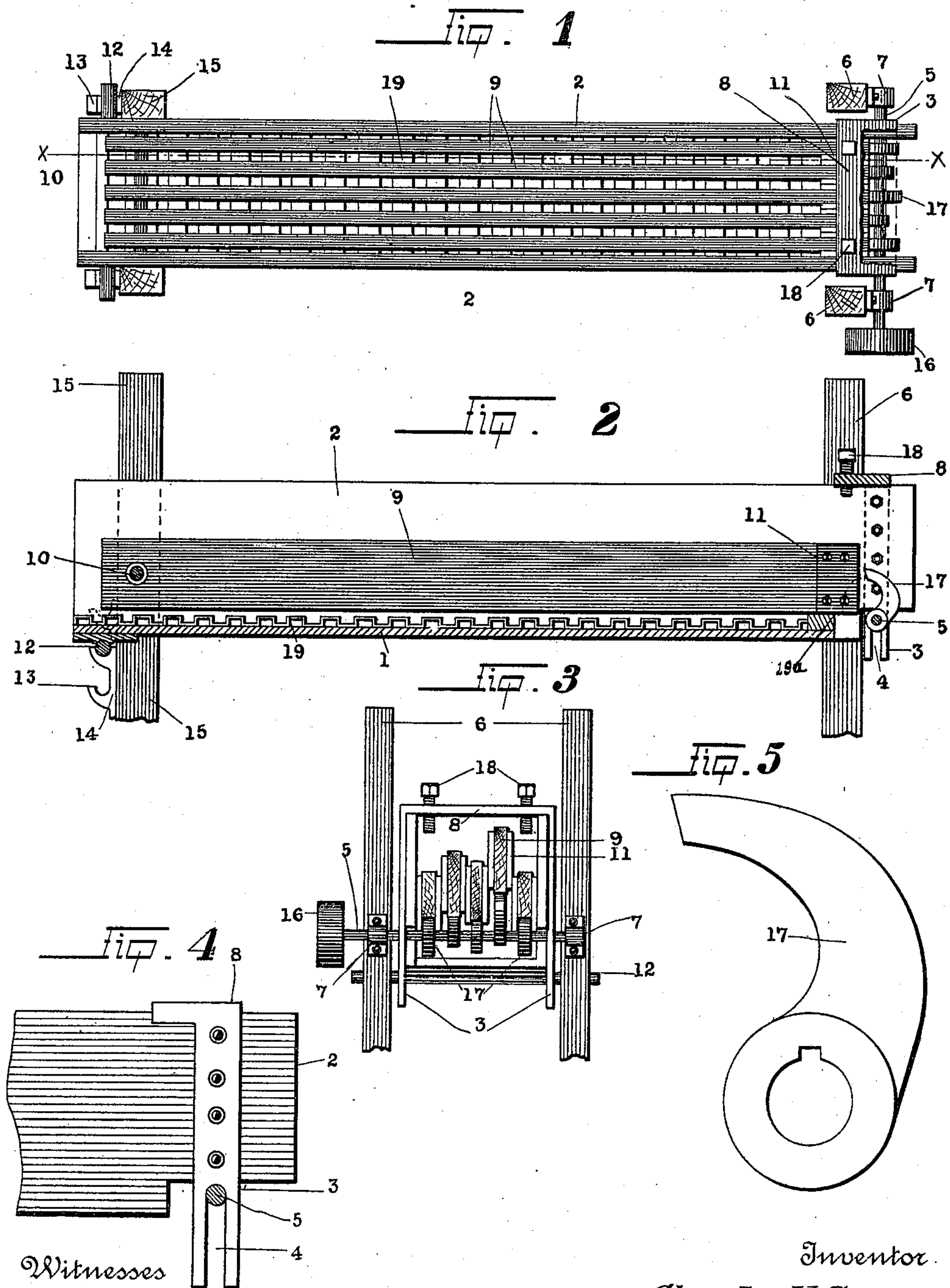


C. H. GUNN.
SHAKING GRIZZLY.
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975,413.

Patented Nov. 15, 1910.



Witnesses
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UNITED STATES PATENT OFFICE.

CHARLES H. GUNN, OF MARYSVILLE, CALIFORNIA.

SHAKING-GRIZZLY.

975,413.

Specification of Letters Patent. Patented Nov. 15, 1910.

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To all whom it may concern:

Be it known that I, CHARLES H. GUNN, a citizen of the United States, residing at Marysville, in the county of Yuba, State of California, have invented certain new and useful Improvements in Shaking-Grizzlies; and I do declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it appertains, to make and use the same, reference being had to the accompanying drawings, and to the characters of reference marked thereon, which form a part of this application.

This invention relates to improvements in ore or gravel shakers or disintegrators, the object of the invention being to produce a device which will rapidly and effectively sift and segregate the gravel or rock and dirt so that the same will be thoroughly separated and disintegrated in such a manner that when the same is delivered to a concentrator or ore sifter the same will be so loose and free that the precious metals can be readily and efficiently extracted therefrom, the device being especially adapted for use on a shovel excavator or similar device which brings the dirt or gravel out of the earth in large and compact quantities.

A further object of the invention is to produce a simple and inexpensive device and yet one which will be exceedingly effective for the purposes for which it is designed.

These objects I accomplish by means of such structure and relative arrangement of parts as will fully appear by a perusal of the following specification and claims.

In the drawings similar characters of reference indicate corresponding parts in the several views.

Figure 1 is a top plan view of the complete device. Fig. 2 is a sectional view taken on a line $x-x$ of Fig. 1. Fig. 3 is an end view of the complete device. Fig. 4 is a fragmentary end view of one side of the device. Fig. 5 is a side view of a cam.

Referring now more particularly to the figures of reference on the drawings, I first provide a trough comprising a bottom 1 and side members 2 having vertically disposed side bars 3 at one end, such bars depending below the bottom 1 and having vertical slots 4 in one end through which projects a shaft 5 having suitable side supporting beams 6 in which it is journaled, as at 7, the weight

of said trough at that end resting on said shaft 5.

Across the top of the side bars 3 and forming a part thereof above the sides is disposed a cross bar 8.

9 are oscillating horizontal bars pivoted on a shaft 10 disposed at the other end of the trough. The free ends of said members 9 having a plate 11 on each side, those plates on adjacent beams bearing against one another and thus keeping the said beams 9 evenly spaced as is necessary to their perfect operation.

The end of the trough opposite the shaft 5 rests on a shaft 12, resting on notches 13 on vertical racks 14 on side beams 15. The shaft 5 carries a drive pulley 16, such shaft also carrying a plurality of cams 17 adapted to strike and oscillate the bars 9 moving them against their guides 11 as aforesaid, this action of these bars acting to break and pulverize and separate the rock and dirt, the cams 17 being so placed as to operate the said bars 9 in staggered order as shown in Fig. 3 which provides more efficient results from their operation, such bars normally resting and dropping on a cross bar 19^a.

In order to clean out the trough of any particles which might settle in the bottom thereof and move them onto the concentrators and thus save the precious metal therein, I provide set screws 18 in the bar 8 which may be at intervals screwed down so that two or more of the bars 9 will impinge against them and then the operation of the cams will oscillate the trough 1—2 on its pivotal point 12, its opposite end being permitted to move up and down through the medium of the slot 4 on the shaft 5. Then when the trough is cleaned the set screws 18 can be loosened and the trough will then remain stationary and the bars 9 continue their work.

The shaft 12 being movable in the ratchets 13 permits the trough 1—2 to be set at any desired pitch according to requirements. The bottom of the trough 1—2 may be provided with riffles 19.

From the foregoing description it will be readily seen that I have produced such a device as substantially fulfils the objects of the invention as set forth herein.

While this specification sets forth in detail the present and preferred construction of the device still in practice such deviations

from such detail may be resorted to as do not form a departure from the spirit of the invention.

Having thus described my invention what
5 I claim as new and useful and desire to secure by Letters Patent is:—

1. A shaking grizzly comprising a shaft, a plurality of bars pivotally mounted on said shaft at one end, plates secured on each side
10 of each free end of said bars and bearing one against the other, and means for oscillating said bars.

2. A shaking grizzly comprising a shaft, a plurality of bars pivotally mounted at one
15 end upon such shaft, a stationary beam, the other end of said bars resting on said beam, a shaft mounted independently of said bars, and cams arranged on said shaft and adapted to engage the free ends of said bars.

20 3. A shaking grizzly comprising a shaft, a trough pivotally mounted at one end on said shaft, another shaft, said trough resting on said second shaft, a plurality of oscillating

bars in said trough and means whereby the trough may be oscillated with said bars. 25

4. A shaking grizzly comprising two shafts journaled at spaced distances apart, a trough pivotally mounted on one of said shafts, a plurality of oscillating bars in said trough, and means on said trough adapted
30 to cooperate with said bars for oscillating said trough.

5. A device of the character described comprising a trough pivoted at one end, a cross bar on top of said trough at the other
35 end, oscillating bars in said trough, set screws disposed in said cross bar in alignment with said oscillating bars and cams engaging said oscillating bars.

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

CHARLES H. GUNN.

Witnesses:

CARLETON GRAY,
ZELLA SAVAGE.