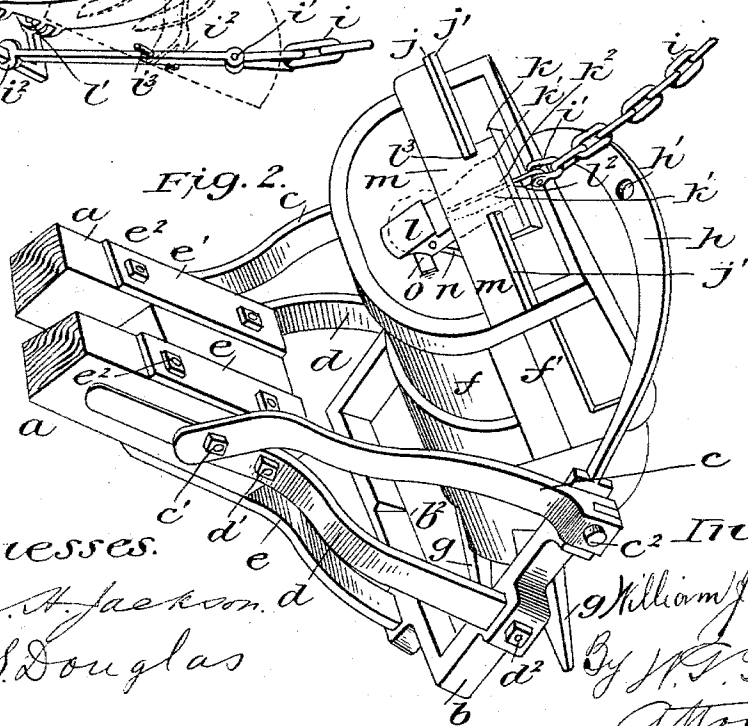
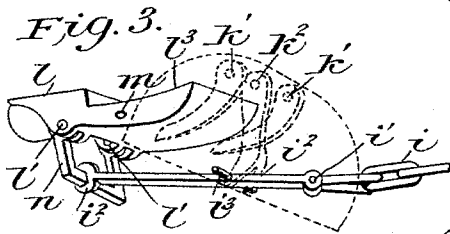
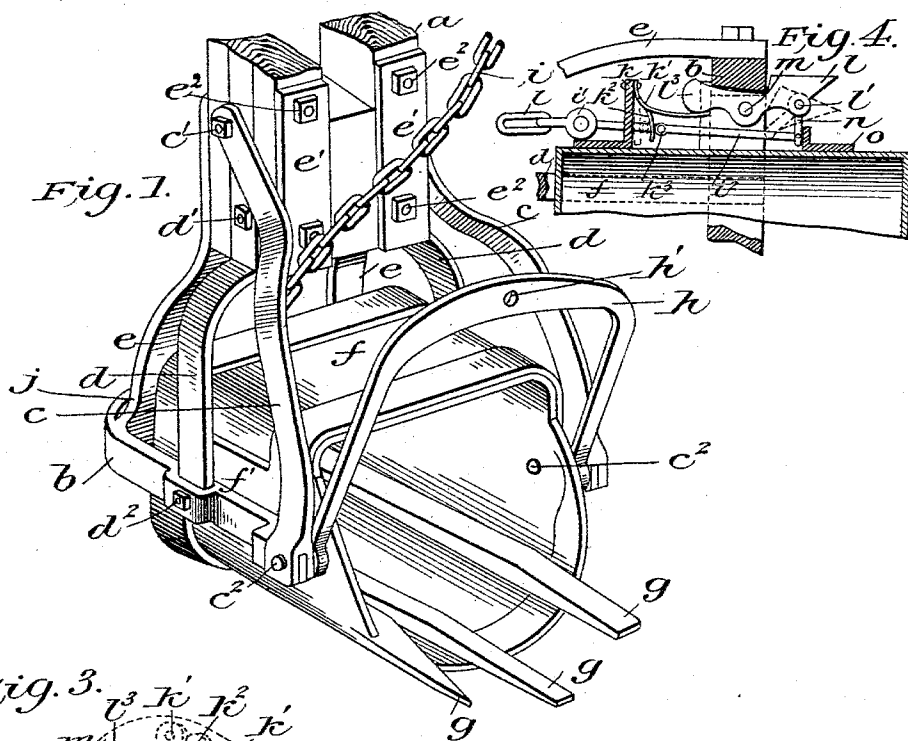


(No Model.)

W. J. MOORE.
DREDGE BUCKET FOR PLACER MINING.

No. 569,837.

Patented Oct. 20, 1896.



Witnesses.
John H. Jackson
C. S. Douglas

Inventor.
William J. Moore
By J. S. Tuttle
Attorney

UNITED STATES PATENT OFFICE.

WILLIAM JOHN MOORE, OF NEW WESTMINSTER, CANADA.

DREDGE-BUCKET FOR PLACER-MINING.

SPECIFICATION forming part of Letters Patent No. 539,837, dated October 20, 1896.

Application filed May 11, 1896. Serial No. 591,194. (No model.) Patented in Canada February 13, 1896, No. 51,319.

To all whom it may concern:

Be it known that I, WILLIAM JOHN MOORE, a citizen of the Dominion of Canada, residing at New Westminster, in the Province of British Columbia, Canada, have invented a new and useful Improvement in Dredge-Buckets for Placer-Mining, (for which I have obtained a patent in Canada, No. 51,319, bearing date February 13, 1896,) of which the following is a specification.

My invention relates to improvements in dredge-buckets; and it has for its object to provide a bucket of the kind that will enable the placer-miner to raise the whole contents thereof and deposit the same on a barge or shore without the loss of the smaller particles, which is not the case with the other buckets now in use. I attain this object by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a view of a bucket in position for dredging embodying my invention. Fig. 2 is a view of the bucket inverted, showing the locking apparatus. Fig. 3 is an enlarged detailed view of the latch; and Fig. 4 is a detached sectional view of the said latch 1, showing how it is secured to the bucket.

Similar letters refer to similar parts throughout the several views.

a is the arm common to all dredging-machines.

b is a strongly-constructed frame with sockets, as shown, holding the bucket *f* in position; *c c*, the forward braces bolted to the arm *a* at *c' c'* and secured to the frame by the axle-pins *c² c³*, which are fixed to the sides of the bucket *f* and pass through the perforations in the forked ends of the frame *b* and forward braces *c c*.

d d are center braces bolted to the arm *a* at *d' d'*. The lower ends fit into sockets of the frame *b* and are bolted, as at *d² d³*.

e e are rear braces bolted to the arm *a* and the frame *b* in a similar manner.

e' e' are ordinary plates; *e² e³*, bolts.

f is the bucket revolving on the pins *c² c³*.

f' is the bucket-rest secured to the bucket *f* and resting on frame *b* when the bucket is in position for dredging.

g g g are ordinary teeth riveted or otherwise secured to the lower side of the bucket *f*,

h is an ordinary bail for hoisting the bucket.

having the ends perforated, through which perforations pass the axle-pins *c² c³*.

J J are the back rests secured to back of bucket *f*, the flanges of which, *J' J'*, rest on the back of the frame *b*.

k is a projecting bracket or plate secured to the bottom of the bucket *f*, to which are secured the springs *k' k'*. These springs *k' k'* are required to hold the latch *l* in an oblique position when the bucket is inverted, and the spring *k²*, which is forked at the depending end over the rod *i²*, presses against the pin *i³* in order to push forward the said rod *i²* for the purpose of forcing the latch-rest end *n* vertically under the latch *l* and against the stop *o*, which said stop *o* is secured to the bottom of the bucket, as shown. The latch-plate *l* is pivoted upon the center pins or trunnions *m m*, let into the back of the rest *j j*.

i is an ordinary chain.

i' is an ordinary bolt-shackle; *i²*, a rod connected therewith by bolt of shackle passing through the perforation at the end.

i³ is a pin passing through rod for the forked spring *k²* to engage, as above described.

The latch-rest *n* is hinged to the under side of latch *l* and secured with pins *l' l'*. The rod *i²* is connected with the latch-rest *n* in the manner shown, the end of the rod *i²* being enlarged and perforated and the center portion of the rest *n* reduced and passing through it, as at *l²*.

When the chain *i* is released, the bucket falls into the position shown in Fig. 1, the latch-plate *l* passing the beveled chase *b²* until the projection *i³* strikes upon the upper edge of the frame *b*. When the lower end of the latch *l* is thrown out under frame *b*, the spring *k²* pushes the rod *l²* rearward and forces the rest *n* against the stop-plate *o*. The bucket *f* is thus locked in position. When drawn forward and filled, it is raised by an ordinary chain attached to perforation *h'* in bail *h* to the required height and moved where desired. The chain *i* is then drawn up, which has the effect of releasing the latch *l* and at the same motion inverting the bucket, so as to completely empty the entire contents thereof where desired. As the chain *i* is released the latch *l* is prevented from moving by the springs *k' k'*, bearing against the under side thereof until the bucket again drops back

into position, and the projection l^3 is engaged by the frame b , when the said latch l will be thrown forward and locked. (See Fig. 4.)

It will be at once understood that my invention has a great advantage over other buckets for placer-mining, as the minute particles pass with the water through the crevices around the movable bottoms in the ordinary buckets, while in mine the bucket is perfectly tight, retains everything brought up, and is only emptied by being inverted, as shown; and it will further be seen that my improved bucket may be attached to and operated by an ordinary dredging-machine, which is an important consideration.

What I claim as my invention, and desire to secure by Letters Patent of the United States, is—

In a placer-mining dredge-bucket, the combination of the frame b , secured by the braces c, c, d, d , and e, e , to the arm a , the bucket f , with the rest-plate f' , and back rests J, J , having axle-pins c^2, c^2 , the bail h , chain i , and shackle i' , with pin i^3 , of latch-rest n , and latch l , working on the centers or trunnions m, m , stop-plate o , with the plate k , secured to the bottom of the said bucket, of springs k', k' , and forked springs k^2 , substantially as and for the purposes above set forth.

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

WILLIAM JOHN MOORE.

Witnesses:

W. G. TRETHEWEY,
J. H. JACKSON.