No. 876,837. PATENTED JAN. 14, 1908.

W. E. POTTS.

BUCKET CLEANING SAVE-ALL.

APPLICATION FILED MAR. 26, 1907.

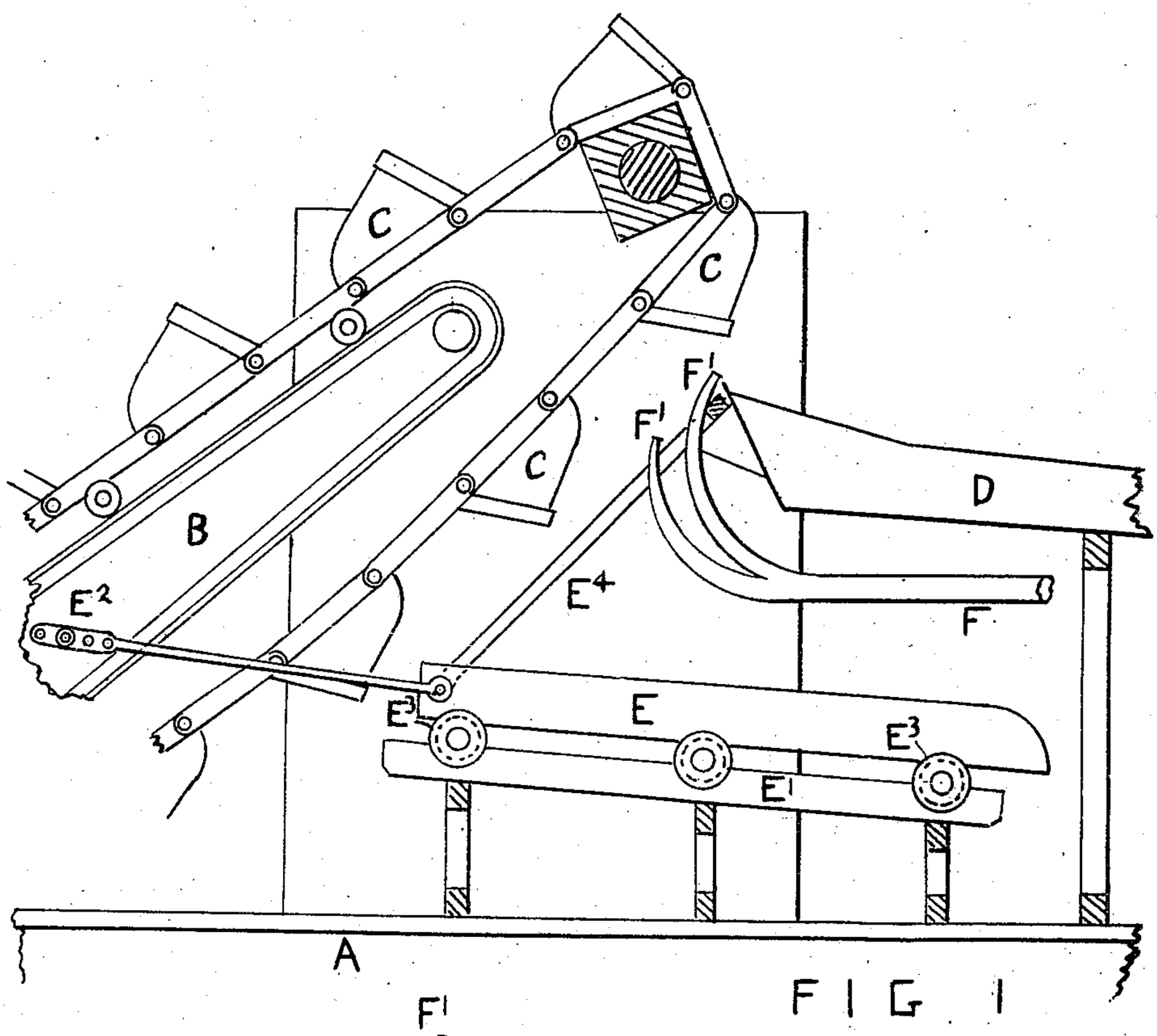

FIG 1

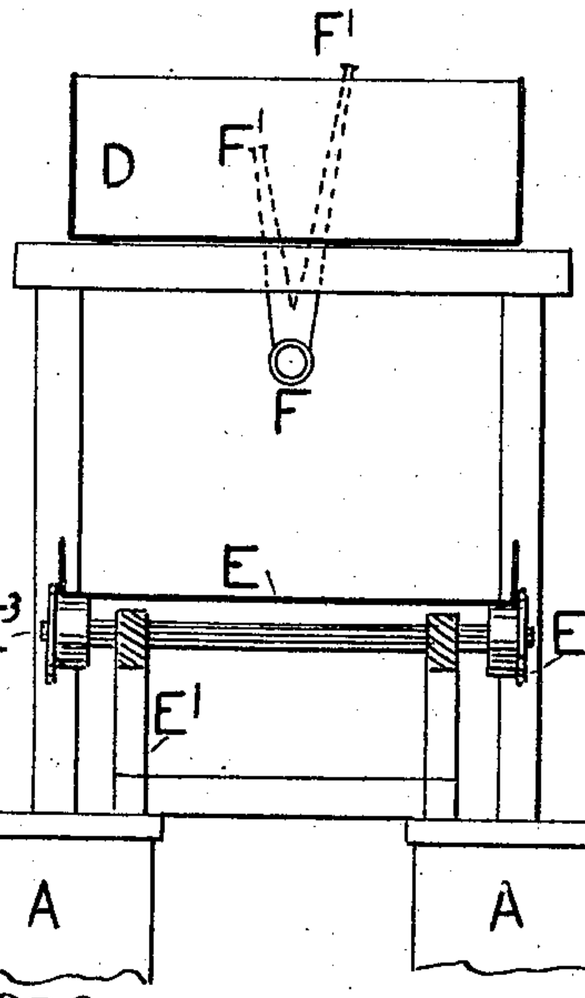

FIG 2

FIG 3

Witnesses
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BUCKET-CLEANING SAVE-ALL.

No. 876,837. Specification of Letters Patent. Patented Jan. 14, 1908.

Application filed March 26, 1907. Serial No. 364,744.

To all whom it may concern:

Be it known that I, WALTER ERNEST POTTS, a subject of the King of Great Britain, of 91ª Princes street, in the city of Dunedin, in the British Colony of New Zealand, an engineer, (whose post-office address is Gore, near Dunedin, New Zealand,) have invented certain new and useful Improvements in Bucket-Cleaning Save-Alls, of which the following is a specification.

The object of this invention, which is intended to be used on the class of machines known as bucket and ladder gold dredges, is to provide an appliance for thoroughly hosing, sluicing or washing out each bucket after it has emptied its contents in the usual way so as to save the gold that is found to remain sticking to the lips or other parts of said buckets, when working in gold bearing wash. For this purpose I make an extension of the usual save-all used in some dredges and place protected nozzles in such position that they hose out each bucket as it approaches and passes them, said protection serving two purposes, protecting the nozzle from being choked by material from said buckets and assisting the cleaning out by the air-blast set up by this formation of jet. Thus the usual material passes to the usual save all plus the extra material hosed out of the buckets through or past ordinary bars, but instead of said bars and save-all chute being fixed as now, I keep them at the proper distance from the buckets by linking them to the dredge ladder to move as it moves in dredging to greater or less depth.

Referring to the accompanying drawing:—Figure 1 is part of a dredge as used in gold mining showing part of the bucket line, and chute which in some is replaced by a revolving screen, these being immaterial to my invention, together with sufficient of the deck to show my invention in position; and Fig. 2 is an end view of same. Fig. 3 is a longitudinal section of the protected nozzle.

A is the part of the usual hull shown, B is the top end of the usual ladder and C C are buckets emptying into the screen or chute D as usual.

E is the usual save-all chute resting on frame E′ for catching bucket droppings but in my invention all buckets are hosed out by nozzles F^1 arranged to best effect this object as I find gold sticks to the buckets at present, this not being done.

F is either the present sparge pipe or a branch from same, and I end it in as many nozzles as needed F^1 F^1. These nozzles may be protected as shown Fig. 3 especially in clay ground &c.

The chute E is placed either on slides or rollers E^3 E^3 and is kept at the required distance from the buckets automatically by the links E^2 adjustable as indicated.

E^4 are bars to break up any lumps if any, before passing to E and they may pass stones away into the well if needed in the usual manner and as shown.

F^2 is the protection piece for nozzle F^1.

I am aware that save-alls are in use but my object is to make them more effective by making them keep at a proper distance from the buckets, as close to the lips as possible without being struck by them.

The save-all chute and cleaning out nozzles may be in any position other than the exact position shown or where their purpose may be best effected and any suitable sizes or materials may be adopted.

Having now described my invention what I claim and desire to obtain by Letters Patent of the United States of America, is:—

1. In an apparatus of the class described, the combination of a conveyer, one or more fluid jets for removing the adherent material from said conveyer, and a chute adjustably connected to the conveyer ladder for collecting said material.

2. In an apparatus of the class described, the combination of a conveyer, a dumping chute, one or more fluid jets for removing the adherent material from said conveyer, and a chute adjustably connected to the conveyer ladder for collecting said material.

3. In an apparatus of the class described, the combination of a conveyer, one or more fluid jets for removing the adherent material from said conveyer, a chute adjustably connected to the conveyer ladder for collecting said material, and a plurality of bars interposed between the conveyer and the adjustable chute for breaking the material in its descent from the conveyer to the chute.

4. In an apparatus of the class described, the combination of a conveyer, one or more fluid jets for removing the adherent material from said conveyer, protective hoods for said jets, and a chute adjustably connected to the conveyer ladder for collecting said material.

5. In an apparatus of the class described, the combination of a conveyer, a dumping

chute, one or more fluid jets for removing the adherent material from said conveyer, a chute adjustably connected to the conveyer ladder for collecting said material, a plurality of breaking bars interposed between the conveyer and the adjustable chute, and rollers for supporting said chute.

6. In an apparatus of the class described, the combination of a conveyer comprising an endless chain and a plurality of buckets, means for removing the adherent material from said buckets, a supporting frame, rollers mounted on said frame, a chute mounted on said rollers adapted to receive said material, and a link connected to said chute and adjustably secured to the conveyer ladder.

In testimony whereof I have hereunto set my hand.

WALTER ERNEST POTTS.

In the presence of—

HENTON MACAULAY DAVEY,
WILLIAM MURPHY.