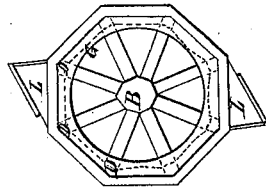


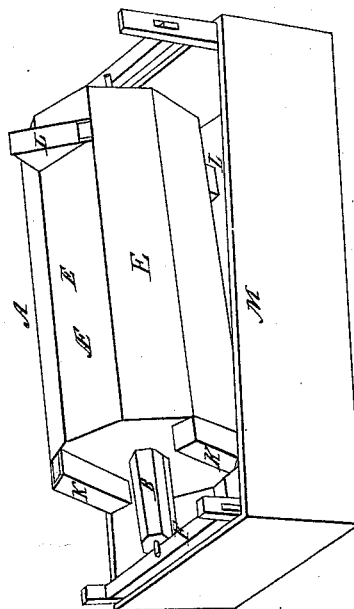
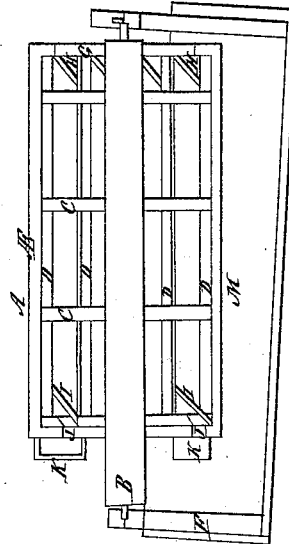
F. FREDLY.  
Ore Washer.

No. 171.

Patented Apr. 20, 1837.



*Sectional Views*



# UNITED STATES PATENT OFFICE.

FREDERICK FREDLY, OF LOGAN TOWNSHIP, PENNSYLVANIA.

## MACHINE FOR WASHING IRON AND OTHER ORES.

Specification of Letters Patent No. 171, dated April 20, 1837.

*To all whom it may concern:*

Be it known that I, FREDERICK FREDLY, of Logan township, Center county, Pennsylvania, have invented an Improvement in  
5 Machines for Washing Iron and other Ores, which is described as follows, reference being had to the annexed drawings of the same, making part of this specification.

This machine consists of a hollow revolving polygonal agitator or case A having a  
10 polygonal shaft B passing through its center—the shaft with the case turning in boxes supported on a frame F in an inclined position—the case being open at the upper  
15 end for the admission of the ore, &c., and closed at the lower end, except two discharging apertures J which are covered by inclined spouts K for discharging the ore. The case is constructed by inserting four  
20 or more sets of arms C into the shaft, each set having as many arms as there are sides to the case, and mortising and tenoning rails D on the ends of the arms parallel with the shaft and covering the whole with flat  
25 pieces of board E equal in number to the sides of the case—the open end of the case being surrounded with a curb G or projection to prevent the escape of the ore.

Narrow strips of wood H or projections  
30 are fastened on the inside of the case at the open end inclining at an angle of about 35 degrees more or less with the rails for giving the ore a direction toward the discharging end as the polygonal case revolves. Inclined strips I are placed at the other end  
35 of the case to direct the ore into the discharging spouts. At the upper end of the case on the outside, are constructed two scoops L for raising the water and discharging it into a trough or receiver and conveying it again to the lower end of the cistern  
40

in order to cause a current therein. The cistern M to contain the water for washing the ore is constructed with its ends vertical and its sides inclined, having a gate at one  
45 end for drawing off the water. The frame F on which the polygonal case revolves is placed within the cistern—one end being higher than the other to give the required inclination to the case. 50

Operation: The cistern being filled about 12, 24, or more inches according to the diameter of the agitator—the agitator is set in motion by any convenient power—the unwashed ore is put in at the upper, and is  
55 directed to the lower end by its rotary motion and the position of the inclined strips—the ore thus washed passes through the apertures at the lower end into the inclined spouts from whence it is discharged into a  
60 receiver or upon an inclined board which conveys it away. At the same time the scoops at the upper end lift the water from the cistern and discharge it into another cistern, or into a trough which conveys it  
65 again into the cistern, thus causing a current from one end to the other. The water is discharged through the gate at the end of the cistern.

The invention claimed and desired to be  
70 secured by Letters Patent consists in—

The use and application of the inclined strips at the ends of the polygonal case inside for directing the ore from the upper to the lower end of it and into the inclined  
75 spouts;—the inclined spouts at the lower end of the case;—and the scoops at the upper end.

FREDERICK FREDLY.

Witnesses:

WILLIAM T. ADAMS,  
WILLIAM BLAKENERY.