To all whom it may concern:

Be it known that I, JOHN COLLOM, of Idaho Springs, in the county of Clear Creek and Territory of Colorado, have invented a new and improved Sampling-Machine, of which the following is a specification:

My invention consists of a small short spout, which is slowly and regularly moved at intervals under the mouth of a spout or trough, through which the substance to be sampled is caused to run, and receives a certain portion of the said substance, and diverts it from the regular course into a sample-box. The proportion of the substance taken to the whole mass is determined by the proportion which the said short spout or receiver bears to the length of the circuit it travels, in the greater portion of which it is not passing the spout. The object is to obtain from crushed ore, grain, and other substances, samples representing an average as to quality, and the proportionate weight.

Figure 1 is a plan view of my improved sampling-machine, with a part broken out to show the parts below more distinctly. Fig. 2 is a longitudinal sectional elevation taken on the line x x of Fig. 1.

Similar letters of reference indicate corresponding parts.

A is the spout through which the substance to be sampled, say crushed ore, is to be carried, and discharged, at the mouth B, into another spout, C, to conduct it away again. D is the short sampling spout or receiver for moving past the mouth B, to receive a small portion while passing, and divert it to the sample-box E, through the spout F. This sampling spout or receiver is mounted on the end of an arm, G, projecting from a revolving shaft, H, which is turned slowly by the wheel I and worm J, the latter being on a shaft, which is turned by any competent power.

The proportion which the width of the receiver bears to the whole circle through which it travels determines the proportion taken of the substance to be sampled.

When crushed ore is to be sampled, it will be run with water through a comparatively flat spout, but for grain, sand, and other dry substances, the descent will be steeper.

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

The combination of the sampling spout or receiver D with a conducting spout, A, when provided with a revolving shaft and arm, and arranged in a predetermined proportion to its circuit, and also arranged for diverting the substance received by it from the conducting spout from the regular course into a sample-receiver; substantially as specified.

JOHN COLLOM.

Witnesses:

THOS. J. DEAN,

W. A. ROSS.