

A. Durall, Universal Joint.

N^o 84,417.

Patented Nov. 24, 1868.

Fig. 2.

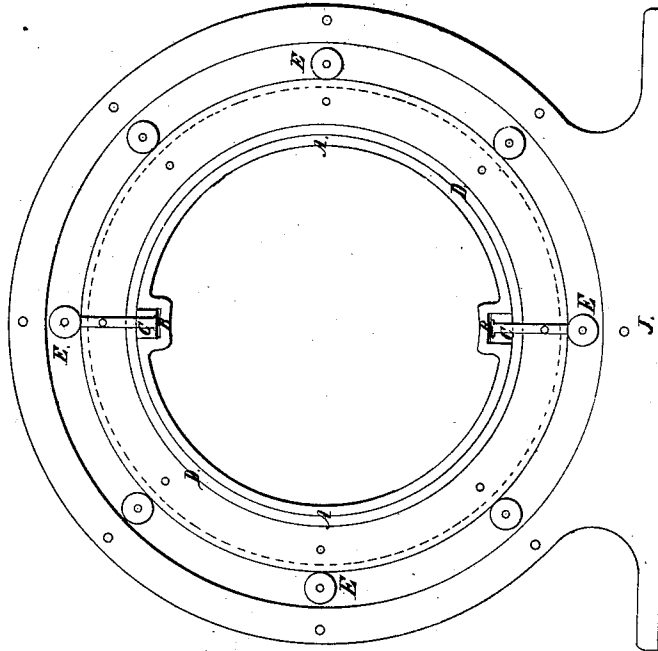
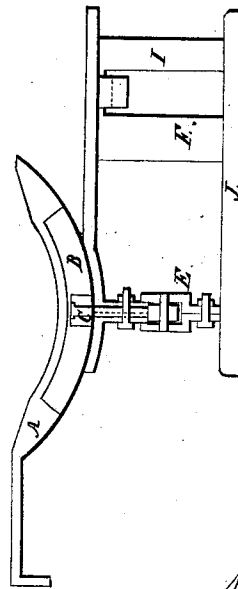
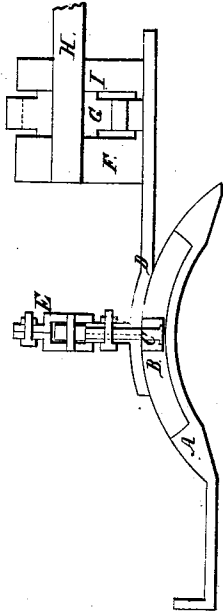


Fig. 1.



Witnesses:

Samuel Keen

Alfred Durall

Inventor:

Alfred Durall



ALFRED DUVALL, OF BALTIMORE, MARYLAND.

Letters Patent No. 84,417, dated November 24, 1868.

UNIVERSAL JOINT.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, ALFRED DUVALL, of Baltimore, in the county of Baltimore, and State of Maryland, have invented a new and useful Improvement in Universal Joints, particularly adapted for communicating motion to hollow revolving dredging-pipes; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, and letters of reference thereon, making a part of this specification, in which—

Figure 1 is a longitudinal section.

Figure 2, a cross-section, through the centre of the sections of the spheres.

To enable others skilled in mechanics to make and use my invention, I will proceed to describe the construction and operation of the same.

The character of my invention, as shown by the accompanying drawings, consists in two sections of hollow spheres, one within the other, the outer driving the inner by gearing and by means of two pins, fastened into and revolving with the outer section, and the outer section revolving within three stationary bearings, or on friction-rollers.

A is the inner section, with two slots, B, in which the pins C, fastened in the outer section D, work.

E is a journal-box, with friction-rollers.

F is a journal-box, with or without friction-rollers.

G is gearing, communicating motion to the sections D and A.

H is a driving-shaft.

I is a guard, through which the pipe works, when used for dredging, and which also serves as a journal-bearing.

J, bed-plate.

Operation.

Power is applied to the shaft H, causing it to revolve, when, by means of the gearing G, a revolving motion is communicated to the sections of spheres D and A, when, by any device desired, the section A may be moved in any line desired in its revolutions.

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

The combination of devices, substantially as shown in the drawings, and set forth in the foregoing specification.

ALFRED DUVALL.

Witnesses:

SAMUEL KEEN,

A. LESLIE DUVALL.