H. B. SINCLAIR.

CURRENT WHEEL.

No. 113,586. Patented Apr. 11, 1871.

fig. 1

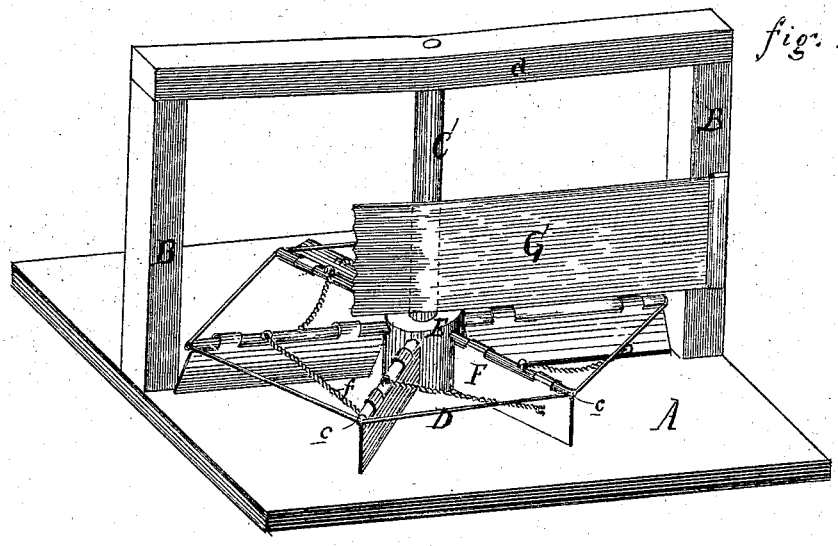
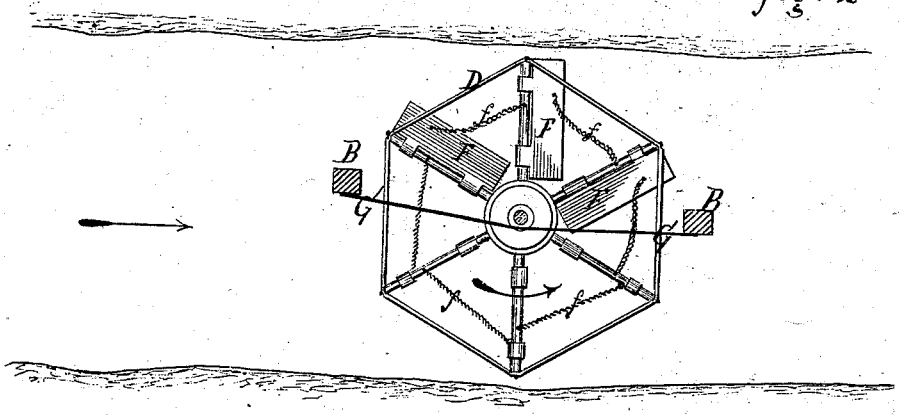


fig. 2



Witnesses:

Kam S Sprague

W. O. Rogers

Inventor:

H. B. Sinclair

Per Attorney,

Thos. S. Sprague

United States Patent Office.

HEMAN B. SINCLAIR, OF PAW PAW, MICHIGAN.

Letters Patent No. 113,586, dated April 11, 1871.

IMPROVEMENT IN CURRENT WATER-WHEELS.

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

To whom it may concern:

Be it known that I, HEMAN B. SINCLAIR, of Paw Paw, in the county of Van Buren and State of Michigan, have invented a new and useful Improvement in Current Water-Wheels; and I do declare that the following is a true and accurate description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon and being a part of this specification, in which—

Figure 1 is a perspective view of my wheel, and

Figure 2 is a plan view.

Like letters indicate like parts in each figure.

The nature of this invention relates to an improved construction of current-water-wheels, and of guides for deflecting drift-wood; and

It consists in the combination of a current water-wheel of peculiar construction, with a guide or deflector to prevent any floating substance from interfering with the action of the wheel, as more fully hereinafter set forth.

In the drawing—

A represents a foundation, properly arranged in the bed of the stream.

Upon this foundation are erected two or more posts, B, connected at the top by a suitable string-piece or girder, *a*.

C is a vertical shaft stepped in suitable bearings in the foundation, its upper end being journaled in the girder *a*.

A suitable gear or band-wheel on the upper end of this shaft gives motion to the machinery to be operated by the wheel.

E is a hub rigidly secured to the shaft C at its lower end.

From this hub radiate a number of arms, *c*, their outer ends being connected to one another by peripheral brace-rods *d*.

Upon the radial arms are hinged, at their upper edges the blades F.

f are chains leading from one radial arm to the bottom of the blade next preceding it, and is of such length that the blades moving with the current will assume a vertical position, on which the current acts to compel the rotation of the wheel, while the blades on the other side of the wheel may swing up and feather while moving against the current.

G is a deflecting-guide extending from the lower to the upper uprights of the frame immediately above the wheel, the later upright being set back toward the shore so as to deflect descending drift-wood to the working side of the wheel, so that, even if the drift-wood should come in contact with a blade, it would pass out as soon as the blade became tangent to the current.

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

The combination of a current water-wheel provided with the hub E, the radial arms *c*, the blades F, the brace-rods D, and the chains *f*, with the deflecting-guide G, all constructed and arranged substantially as described and shown, for the purpose set forth.

Witnesses: HEMAN B. SINCLAIR.

HARRY S. SPRAGUE,

W. S. ROGERS.