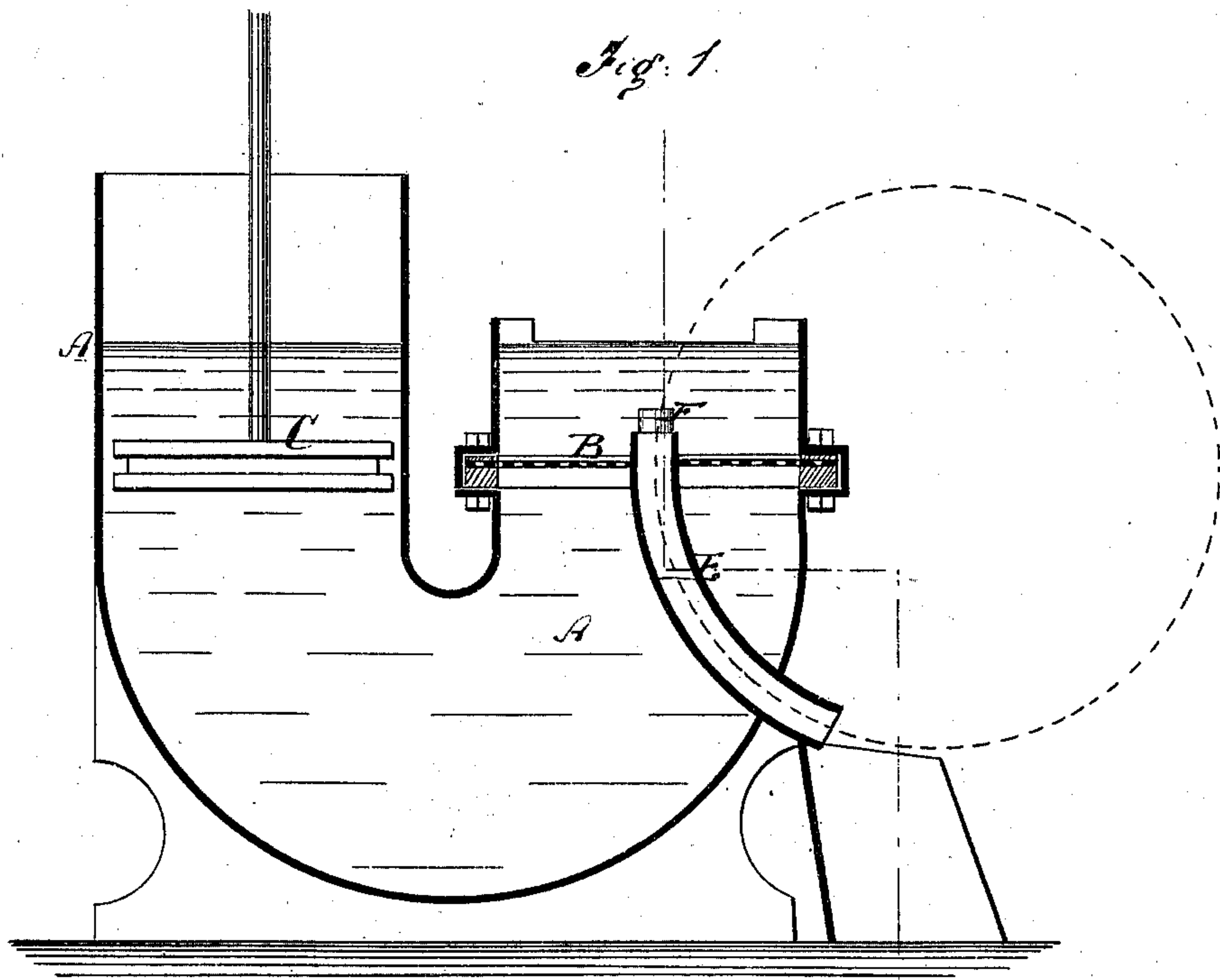


J. F. UTSCH.

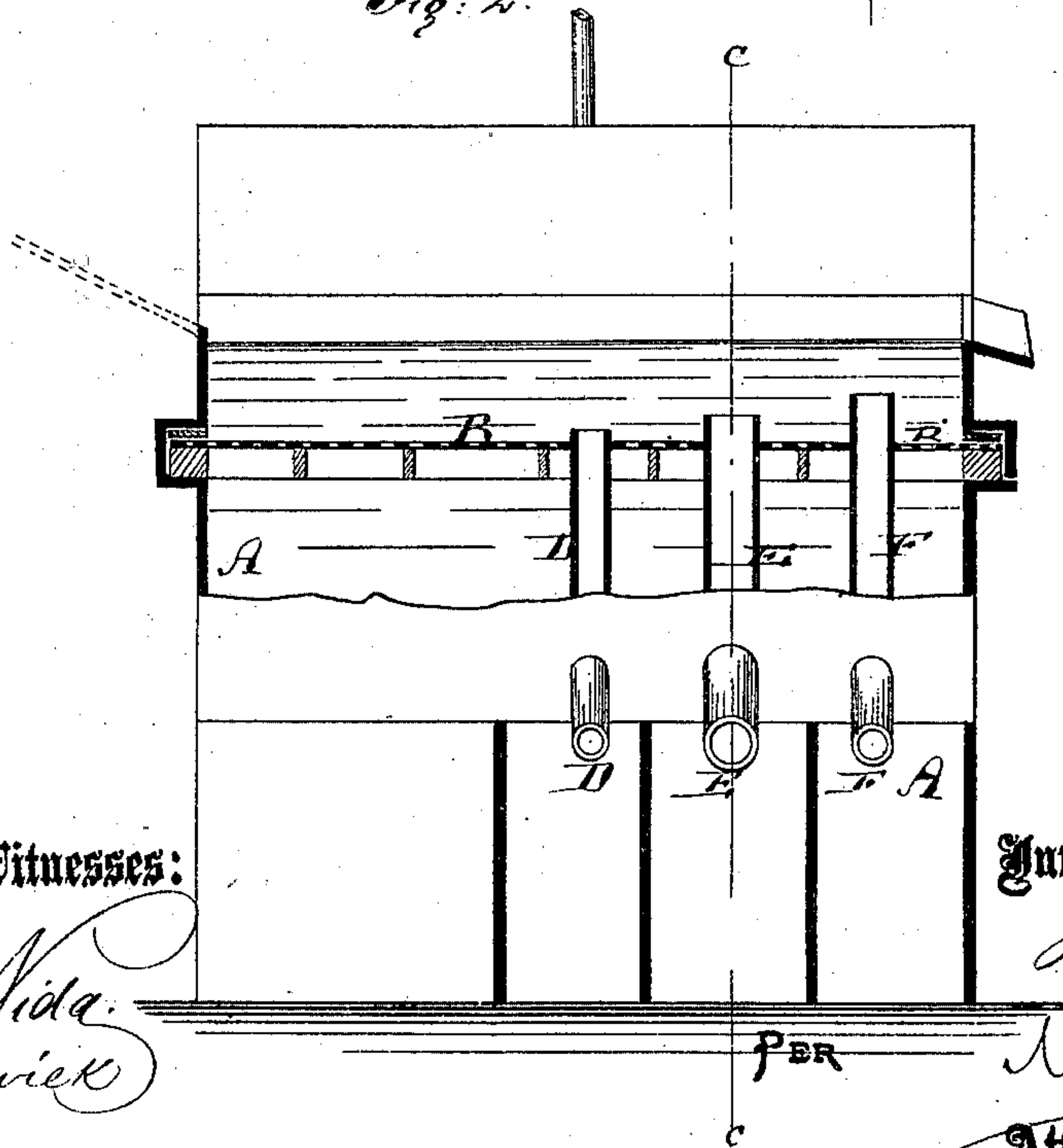
Ore-Jiggers.

No. 133,606.

Patented Dec. 3, 1872.



*Fig. 2.*



Witnesses:

*Chas. Nida*  
*C. Seignier*

Inventor:

*J. F. Utsch*

*Munn & Co*  
Attorneys.

# UNITED STATES PATENT OFFICE.

JOHANN FRIEDRICH UTSCH, OF ISERLOHN, GERMANY.

## IMPROVEMENT IN ORE-JIGGERS.

Specification forming part of Letters Patent No. **133,606**, dated December 3, 1872.

*To all whom it may concern:*

Be it known that I, JOHANN FRIEDRICH UTSCH, of Iserlohn, Empire of Germany, have invented a new and useful Improvement in Jig-Machine, of which the following is a specification:

Figure 1 represents a vertical transverse section of the improved jig-machine, the line C C, Fig. 2, indicating the plane of section. Fig. 2 is a front elevation, partly in section, of the same.

Similar letters of reference indicate corresponding parts.

The object of this invention is to produce an automatic discharge for jig-machines whereby the several grades of ores will be discharged according to their specific gravity without reference to size. The invention consists in the application to the jig-sieve of two, three, or more discharge-pipes whose upper ends project at various distances above the sieves, so that during operation the heavier parts of the ore will be discharged through the pipe projecting least, while the lighter grades, forming higher stratum on the sieve, will be discharged through the pipes projecting higher.

In this manner the discharge of ores will be entirely automatic and self-regulating, and the operation will be carried on with considerably more speed than by the devices now in use. Ordinary jig-machines can be readily convert-

ed into self-discharging by the mere application of said pipes, which can be done at little outlay of labor and expense.

A in the drawing is the jig-box, carrying a sieve, B, at one end, while a plunger, C, is moved up and down in the other part. D E F are curved pipes extending through the sides of the box A and also through the sieve, and open at both ends, as shown. The upper end of the pipe D projects less from the sieve than that of E, and the end of E less than that of F, as shown in Fig. 2. After the ore is supplied to the sieve and water to the box and the plunger set in operation the lower heavier stratum of ore will be discharged through the pipe D, the next heaviest through E, and the lightest through F. Whenever the discharge is too rapid through one of the pipes it can be stopped by the attendant.

I am aware of the patent granted to A. W. Schell March 10, 1863, and desire to disclaim the same.

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

A jig-box, A, having piston C and sieve B, combined with the series of pipes D E F, graduated in height above the sieve, as described.

JOHANN FRIEDRICH UTSCH.

Witnesses:

CARL FISCHER,  
EDUARD JEUBITZ.