No. 829,172. PATENTED AUG. 21, 1906.

F. POKORNÝ.

ADJUSTABLE DAM.

APPLICATION FILED MAR. 30, 1904.

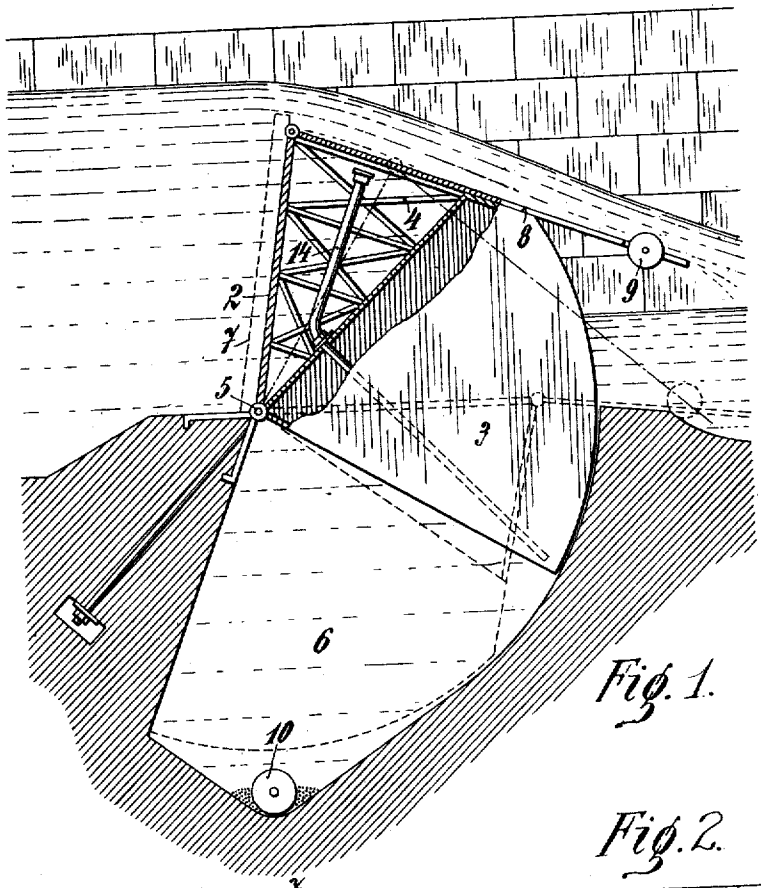
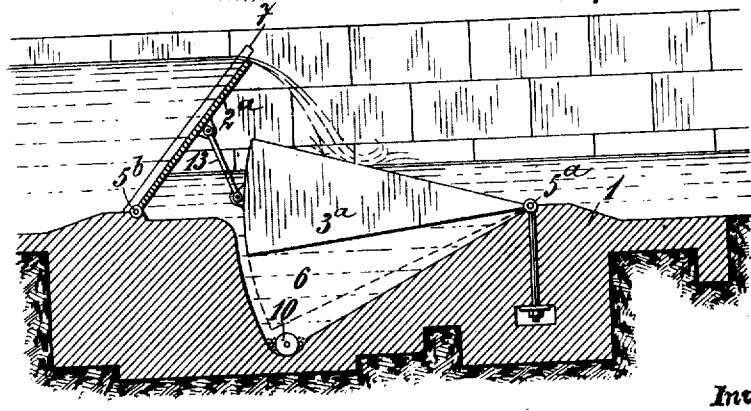


Fig. 1.

Fig. 2.



Witnesses.

F. Heere

Jno. Shuman

Inventor

Ferdinand Pokorný

by B. Singer atty

THE NORRIS PETERS CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

FERDINAND POKORNÝ, OF MORAVSKÁ OSTRAVA, AUSTRIA-HUNGARY.

ADJUSTABLE DAM.

No. 829,172. Specification of Letters Patent. Patented Aug. 21, 1906.

Application filed March 30, 1904. Serial No. 200,827.

To all whom it may concern:

Be it known that I, FERDINAND POKORNÝ, a subject of the Emperor of Austria-Hungary, residing in Moravská Ostrava, Markgravate of Moravia, Empire of Austria-Hungary, have invented certain new and useful Improvements in Adjustable Dams, of which the following is a specification.

My invention relates to improvements in dams which are adapted to adjust themselves automatically to the volume of water flowing thereover, so that the level of the water above the dam remains more or less constant.

As shown in the accompanying drawings, Figure 1 shows an enlarged vertical section of the preferred form of dam embodying this invention. Fig. 2 is a similar view showing a modified form.

The dam comprises a pivoted plate 2, which is rigidly connected to a float 3 by means of iron stays 4, the whole system being rotatable around the pivot 5. The float comprises a receptacle of sheet metal of such dimensions that it will support the plate 2 against a normal pressure of the water above the dam. This float is preferably arranged to swing downward into a pit 6. When the pressure of the water above the dam is increased above the normal amount, the plate will force the float downward into the pit until normal conditions are again obtained. The plate 2 rests against the wall-brackets or strips 7 when the float has raised it to normal position, and a tight closure may be effected at the ends by means of wooden battens, rubber strips, or the like fixed at either side of the plate. In order to prevent flooding or washing out the pit 6 when the dam is lowered, I have provided a hinged plate 8, having rollers 9, which engage with the bottom surface of the bed below the dam, said plate being adapted to coact with the plate 2 to entirely cover the pit 6 and protect the lower wall thereof. The river-bed should be deepened above and below the dam to prevent the accumulation of rubble or sediment. In order to remove sand or other material deposited in the pit, I have provided a longitudinal conveyer 10 therein, which conveys the sand or the like and discharges the same in any desired manner.

In the modified form of construction shown in Fig. 2 the float 3^a is pivoted at 5^a, while the plate 2^a is pivoted at 5^b on the opposite side, said plate and float being connected by links 13. The action is as above described. If desired, the floats could be made somewhat larger than actually necessary to support the plates, so that the supporting action of said float can be regulated by partly filling the same with water. For this purpose I have provided a filling and discharging pipe 14, as shown in Fig. 1, which may be used in filling and withdrawing the water from the float.

I claim—

1. In a dam, the combination of a pivotally-mounted gate for maintaining the water at a predetermined level, a sector-shaped float supporting said gate, and a pit of complemental formation for receiving said float.

2. In a dam, the combination of a pivoted gate maintaining the water at a predetermined level, a float supporting said gate, a pit adapted to receive said float when depressed, and a plate coöperating with said gate to cover the pit when the float is depressed.

3. In a dam, the combination of a pivotally-mounted gate for maintaining the water at a predetermined level, a sector-shaped float supporting said gate, a pit of complemental formation for receiving said float, and a plate coöperating with said gate to cover the pit when the float is depressed.

4. In a dam, the combination of a pivotally-mounted gate for maintaining the water at a predetermined level, a float supporting said gate, a pit adapted to receive said float when depressed, and coöperating means for covering said pit when the float is depressed.

In testimony whereof I affix my signature in presence of two witnesses.

FERDINAND POKORNÝ.

Witnesses:

D. VAN DESORT,

LADISLAV VOJAIELE.