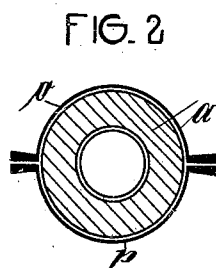
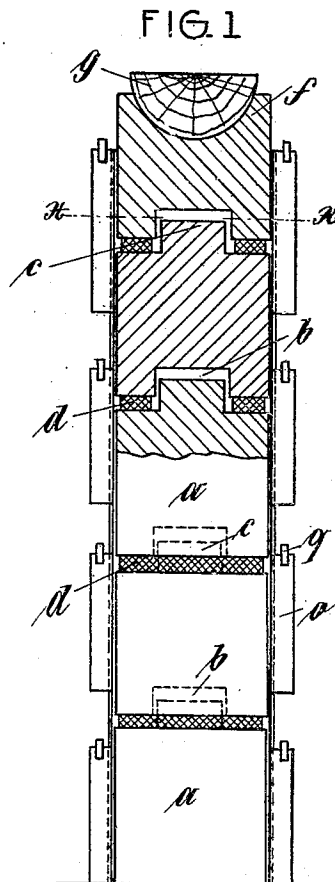


F. NELLEN.
PROP FOR MINES.
APPLICATION FILED DEC. 20, 1907.

931,466.

Patented Aug. 17, 1909.



Witnesses
h. m. m. m. m.
H. m. m.

Inventor:
Friedrich Nellen

UNITED STATES PATENT OFFICE.

FRIEDRICH NELLEN, OF ESSEN-ON-THE-RUHR, GERMANY.

PROP FOR MINES.

No. 931,466.

Specification of Letters Patent.

Patented Aug. 17, 1909.

Application filed December 20, 1907. Serial No. 407,419.

To all whom it may concern:

Be it known that I, FRIEDRICH NELLEN, a subject of the German Emperor, and resident of Essen-on-the-Ruhr, Germany, have invented certain new and useful Improvements in Props for Mines, of which the following is a specification.

This invention relates to improved props for mines which are constructed in such a manner that a tube composed of two semi-cylinders is filled at the place where the prop is to be used with cores from waste material; said props being particularly designed for use in connection with the supports for mine galleries described and claimed in my co-pending application for patent, Serial No. 407,418, filed Dec. 20, 1907.

In the accompanying drawings the invention is shown.

Figure 1 represents, partly in section and partly in front view the artificial prop for mines, the front half of the cylinder being removed. Fig. 2 is a section on the line $x-x$ of Fig. 1, showing both cylinder halves around the prop.

The improved prop for mines consists of a hollow cylinder composed of two semi-cylinders o and p of sheet metal, which is held together by detachable clips q and filled with a core a made from waste-material particularly rock. The core is composed of several pieces of uniform diameter which have an indentation b at one end and a projection c at the other end so that the projection of the one block fits the indentation of the other

block. Between the blocks compressible buffers d are inserted, which are made from cork, wood shavings, straw or similar suitable material. The compressible buffers can also be arranged in the indentations b . The upper core-block f has a semicircular indentation for the reception of the cap g .

The improved prop for mines made as hereinbefore described is of very great stability and it can even be used without the sheet-metal cylinder when it has once been put up. When a pressure is exerted upon such a prop, the buffers are first compressed before any pressure is exerted upon the blocks.

Having fully described my invention, what I claim and desire to secure by Letters Patent is:—

A prop for mines, comprising in combination a hollow cylinder composed of two semi-cylinders and means to hold the same together, a number of superposed rock cores having on one side a recess and on the other side a projection to be rigidly built up in said casing, compressible buffers disposed between the single cores, and a cap, the uppermost core having a semicircular groove to receive said cap, for the purpose set forth.

In testimony whereof, I have hereunto set my hand in the presence of two subscribing witnesses.

FRIEDRICH NELLEN.

Witnesses:

WILHELM FLASCHE,
ALEC. P. MANNY.