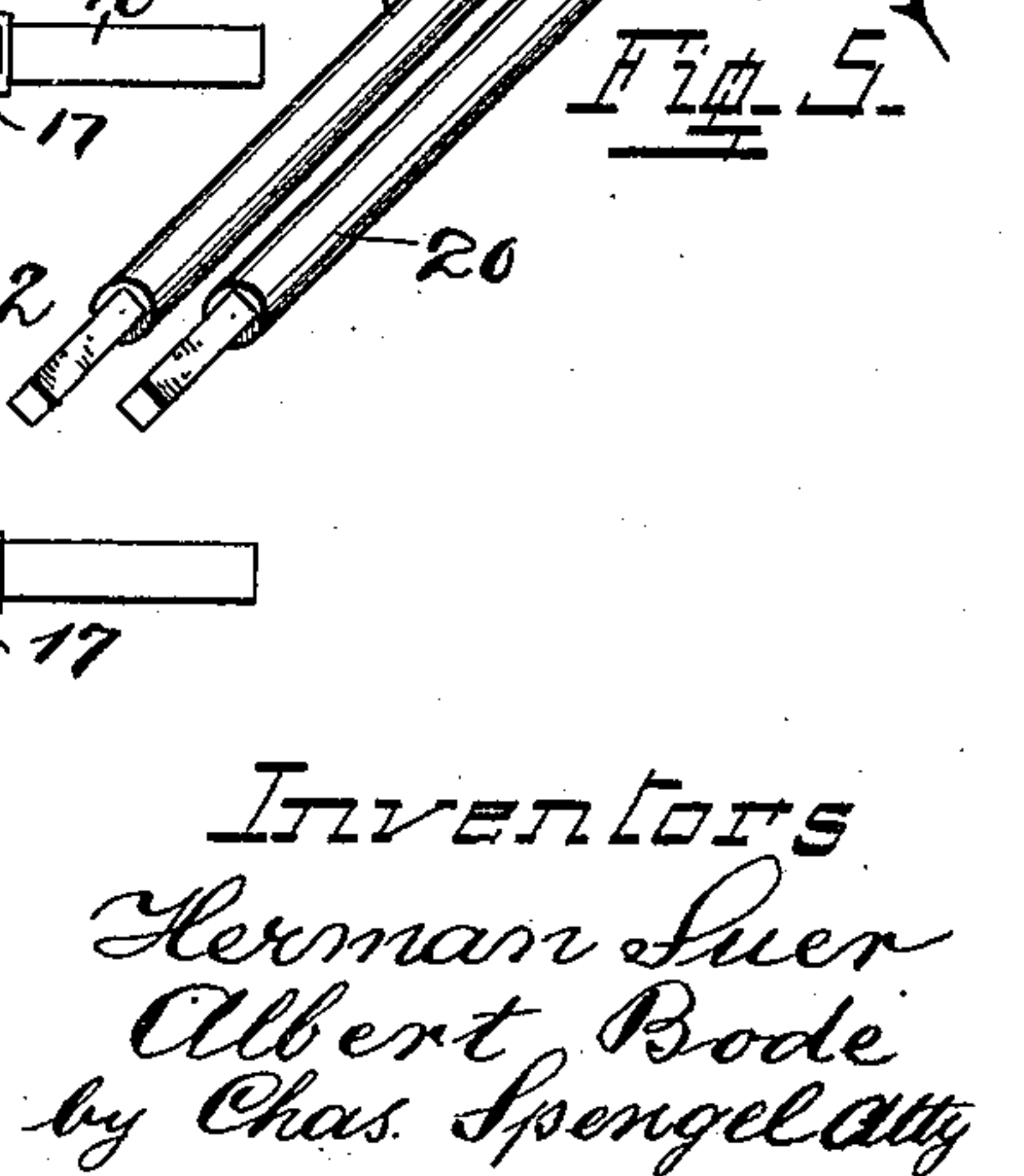
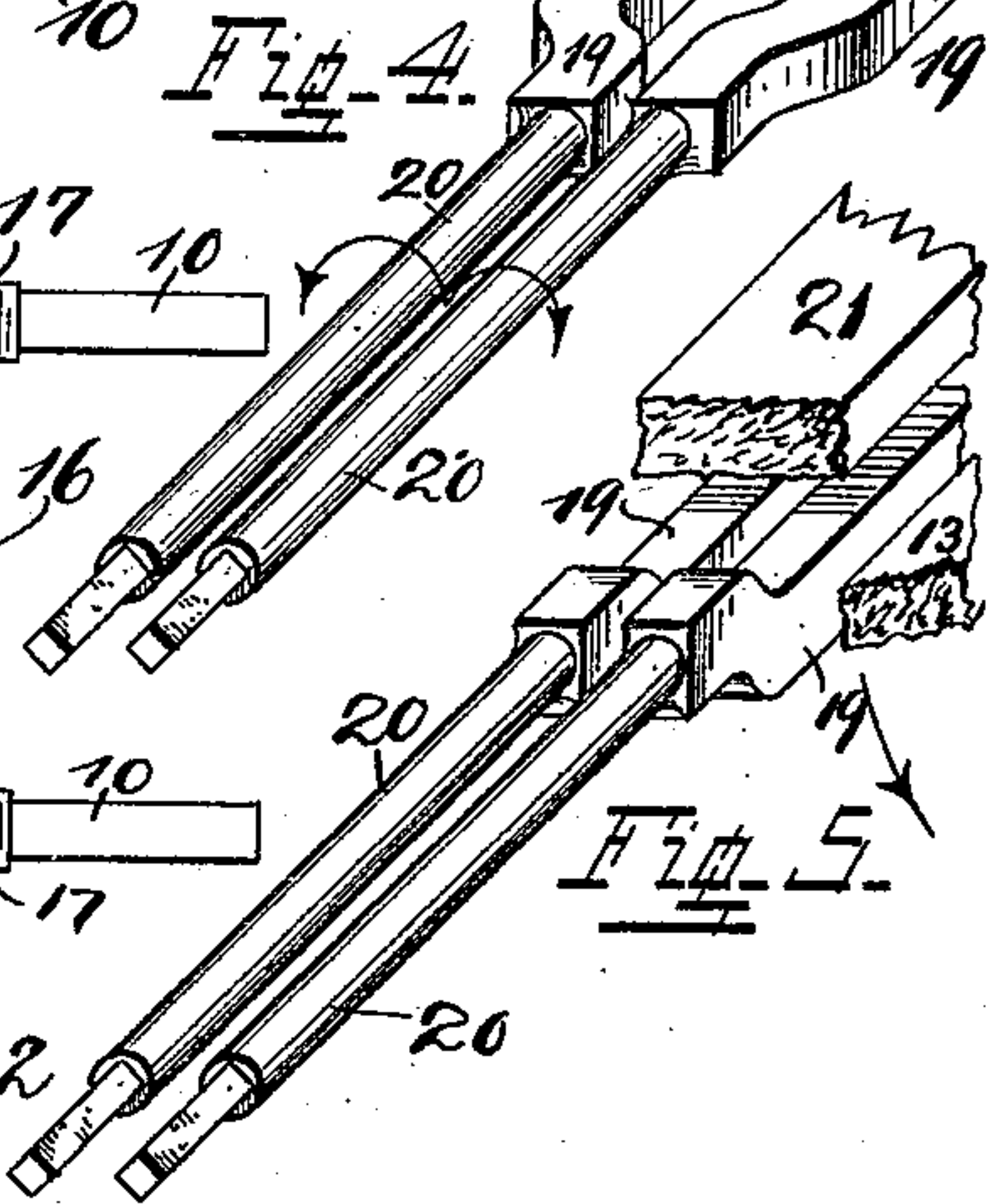
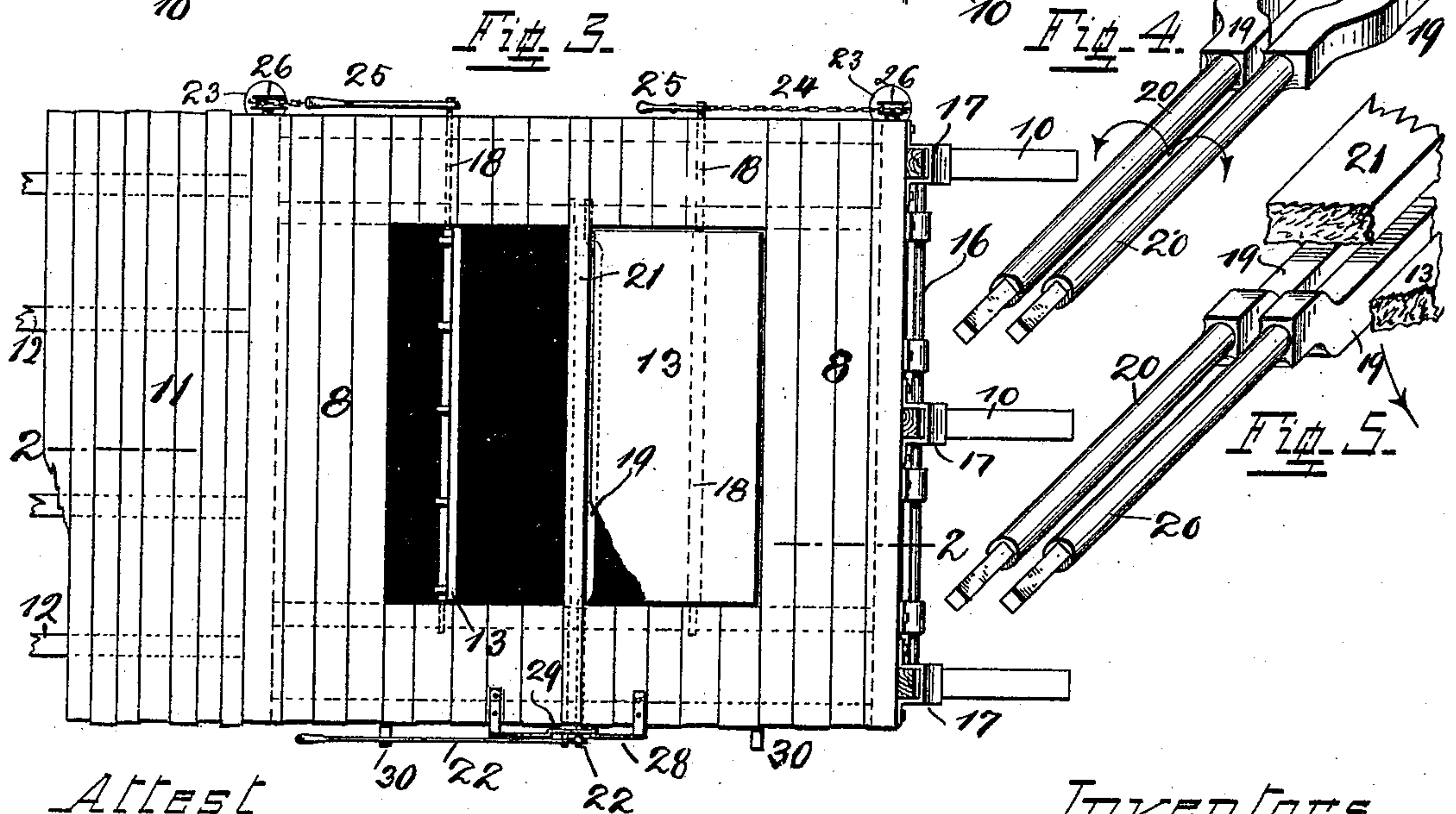
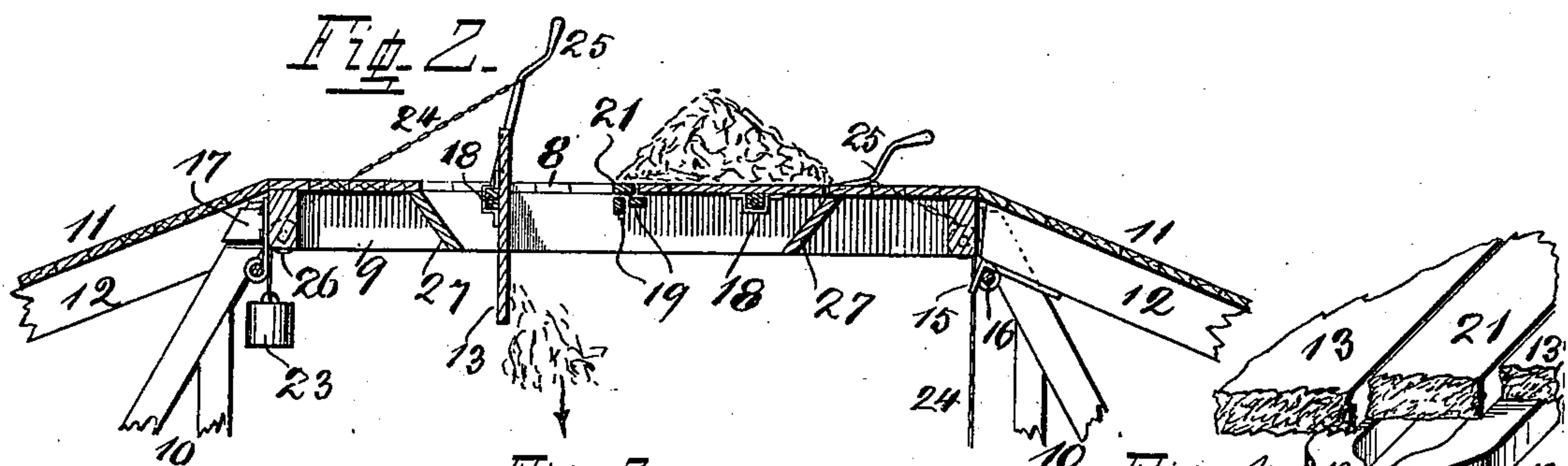
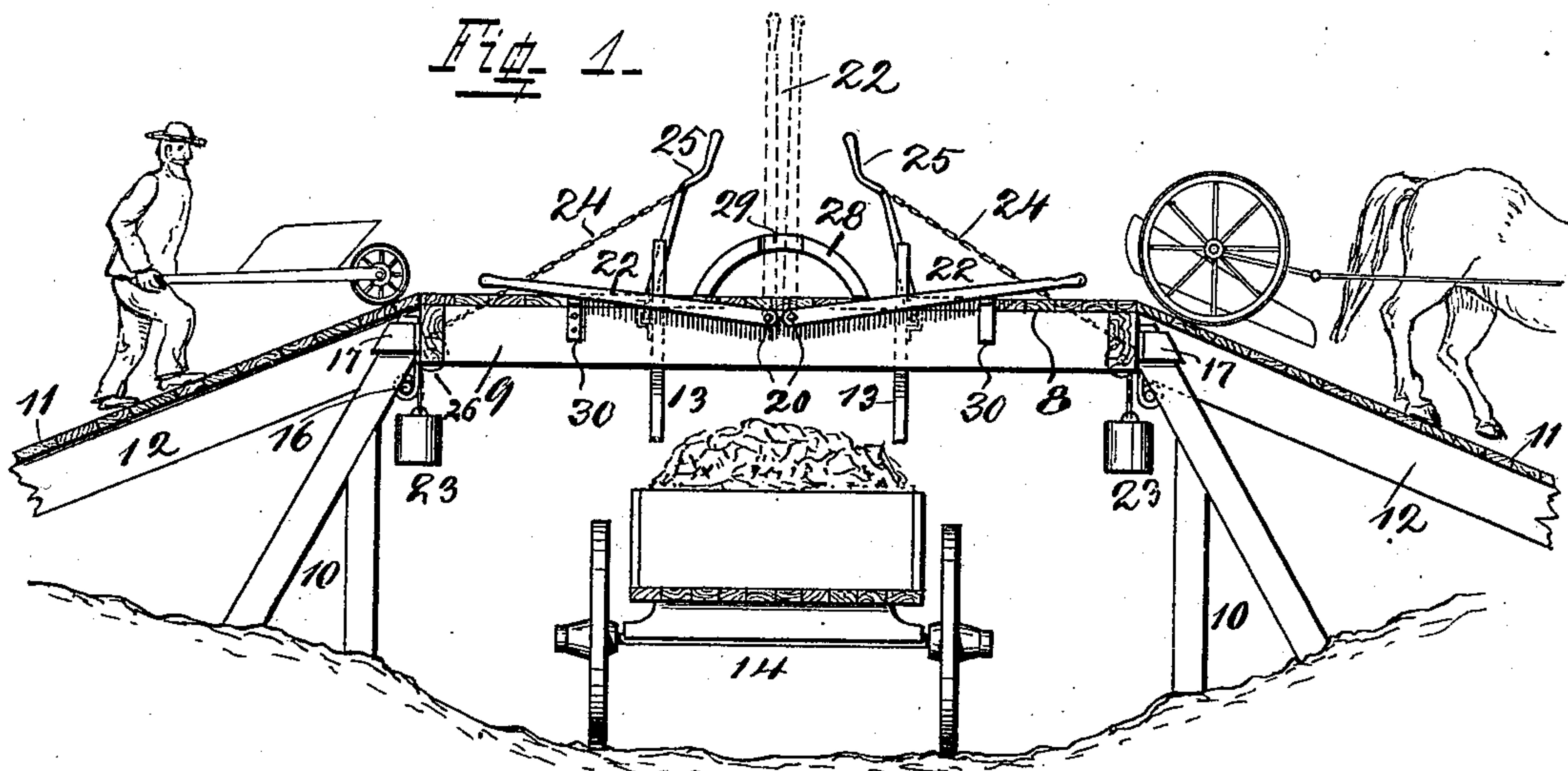


(No Model.)

H. SUER & A. BODE.
LOADING PLATFORM.

No. 510,206.

Patented Dec. 5, 1893.



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UNITED STATES PATENT OFFICE.

HERMAN SUER AND ALBERT BODE, OF CINCINNATI, OHIO.

LOADING-PLATFORM.

SPECIFICATION forming part of Letters Patent No. 510,206, dated December 5, 1893.

Application filed April 12, 1893. Serial No. 470,065. (No model.)

To all whom it may concern:

Be it known that we, HERMAN SUER and ALBERT BODE, citizens of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented a certain new and useful Loading-Platform; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

This invention relates to improvements in loading- or dumping-platforms which are devices used to load wagons in a convenient and quick way and where the matter to be hauled has to be raised or lifted up to them. They are particularly intended for use where earth, or sand has to be moved, as for instance in surface grading, leveling, street-building, digging, &c., where the matter to be taken away is taken up by scrapers or wheelbarrows and by them collected in piles, on said platform, from which it is removed by wagons, cars, or other larger suitable vehicles, which are run under them.

In the following specification and particularly pointed out in the claims is found a full description of our invention, its operation, parts and construction, the latter being also illustrated in the accompanying drawings, in which—

Figure 1 shows our loading platform in side-elevation as it appears after having dumped its charge into a wagon. This view also illustrates the manner in which the matter to be loaded may be transported to it. Fig. 2, shows the platform in section taken on a line 2—2, of Fig. 3 and partly dumped. Fig. 3, is a top-view of the platform partly dumped and its approaches, the one at the right altogether, the one at the left partly removed. Figs. 4, and 5 are perspective views of parts of the lock-bars, showing them in position when upholding and when releasing the trap-doors of the platform, respectively.

8, is the floor and 9 the frame-work of the platform, and is supported by posts and brace 10.

11, 11, are floors, supported by sills 12, which form the approaches to the platform. Part of this latter is formed by trap-doors 13, 13, which in their combined area conform approximately to the size of the bed of the wagon or other vehicle 14, which is to be loaded. The platform projects sufficiently in each direction from these trap or drop-doors to afford the necessary room for the workmen to stand on and permit them and teams to pass conveniently on and off. It is preferable that in passing to and from the platform, all travel be in one direction only, so that no delays are occasioned by waiting and stepping sidewise. This part of the operation is best illustrated in Fig. 1, where the small collecting vehicles, scrapers, or wheelbarrows, pass all up on one side or approach, deposit their contents, and then pass on down and off on the other side. When a quantity, sufficient to fill a wagon has accumulated, upon the platform trap-doors, these latter are released, thereby dumping their load into a wagon put in ready position below. As has already been remarked the size of these trap-doors is such, that when they are covered by a pile of a certain height, they will hold sufficient to fill a wagon by one dump. The height of the platform from the ground should be such, that a wagon can freely pass when the trap-doors are down. Wherever possible, formations of the ground should be taken advantage of, when erecting the device, to lessen the height and inclination of the approaches. This is exemplified in Fig. 1, where the platform is built over a depression which forms the position for the larger wagons while being loaded.

The construction of the whole apparatus should be such that it may be readily taken down and re-erected in another position in conformity with the progress of the work in connection with which it is used. Floors 8, and 11, are readily taken off, because they are only nailed down to their respective supports. Sills 12, which support the latter floors are provided with lugs 15, which hook over rods 16, secured to the platform frame 9, and by reason of such connection are readily detached from the latter. The frame of the platform is provided with sockets 17, into which the upper ends of posts 10, fit and

thereby permit the former to be conveniently lifted off from the latter. The hinges of the trap-doors are formed by bars 18, secured to their under side and finding their bearings in the frame-work 9, of the platform. It will be observed that these hinge-bars are not secured at or near the edges of their corresponding doors, but considerably off therefrom and toward the center. The object of this construction is to nearly balance said doors and cause them to drop slowly when dumping, in order to prevent the heavy shock which otherwise the wagon below would receive from the dropping matter. This arrangement also lessens the weight which the lock-bars 19, have to carry while holding up the trap-doors before dumping. The journals 20, of these bars are not in line with them, but eccentric thereto, as most plainly shown in Figs. 4 and 5, so that when they are respectively turned for dumping as shown in the latter figure, they will sufficiently clear the edges of the trap-doors to permit them to fall. The space between the lock-bars is closed by a narrow blank 21, which passes over them and forms a part of the floor. For their operation these lock-bars carry levers 22, which when in position, as shown in Fig. 1, turn the lock-bars as shown in Fig. 5, whereby the drop-doors are released and permitted to fall. When they have unloaded their charges, they are returned to their normal positions by means of counter-weights 23, secured by chains 24, to levers 25, one of which is affixed to one end of each hinge-bar. 26, are guide-rollers over which the chains 24, pass. After the drop-doors have thus returned to their normal positions, they are secured therein by turning up levers 22, as shown in dotted lines in Fig. 1, whereby lock-bars 19, are caused to turn under the free edges of these doors, thereby becoming supports for them. The ends of levers 25, are turned up as shown to form han-

dles, whereby, after unlocking, if necessary, the doors may be started to dump in case they work sluggishly. Below the floor of the platform and along the larger sides of the opening therein, is a hopper formed by boards 27, whereby matter falling through behind the trap-doors, is also guided into the wagon below. Levers 22, are held in their upright, locked positions by a bracket 28, provided with two offsets formed by a detent 29, into which said levers are sprung. When released and down they rest on other brackets 30, which form stops to their further movement.

A construction might readily be devised whereby one mechanism or lever releases the two trap-doors at once. We have found however that such is not desirable, because the shock caused by the whole load, if at once precipitated upon the wagon, proves in time to be injurious to the latter.

Having described our invention, we claim as new—

1. In a loading-device, the combination of an elevated platform, approaches for the same, trap-doors hinged thereto, locking-bars 19, with eccentric bearings to support and release the trap-doors, and means to manipulate the trap-doors and return them to their normal positions.

2. In a loading device, the combination of an elevated platform, approaches for the same, trap-doors hinged thereto, means to support and release them, levers 25, to manipulate the trap-doors, and counter-weights secured to them to return them to their normal positions.

In testimony whereof we affix our signatures in presence of two witnesses.

HERMAN SUER.
ALBERT BODE.

Witnesses:
C. SPENGEL,
CHAS. MCCARTHY.