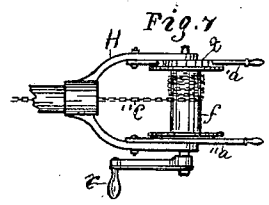
(No Model.)

# J. & W. HOEK.

## ADJUSTABLE STACK PROTECTOR.

No. 244,058. Patented July 12, 1881.



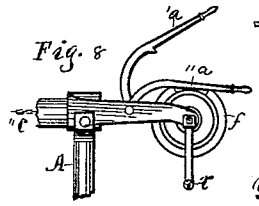










Fig. 1



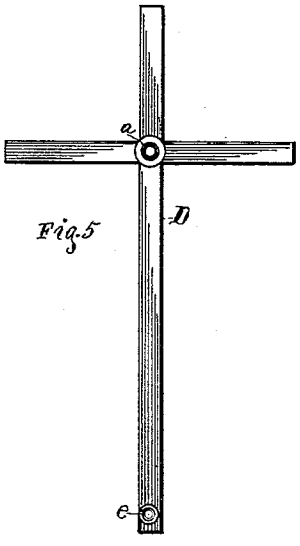




Fig. 5

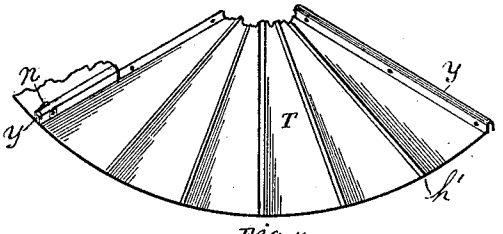
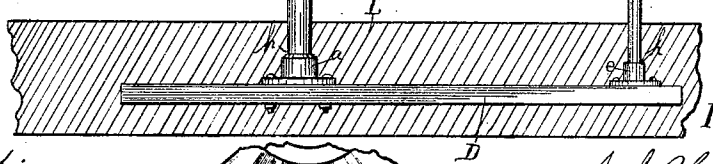



Fig. 4




Fig. 3



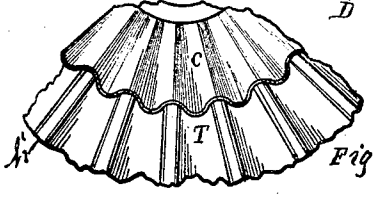




Fig 6

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# UNITED STATES PATENT OFFICE.

JOB HOEK AND WOUTER HOEK, OF KALAMAZOO, MICHIGAN.

## ADJUSTABLE STACK-PROTECTOR.

SPECIFICATION forming part of Letters Patent No. 244,058, dated July 12, 1881.

Application filed May 6, 1881. (No model.)

*To all whom it may concern:*

Be it known that we, JOB HOEK and WOUTER HOEK, citizens of the United States, residing at Kalamazoo, county of Kalamazoo, State of Michigan, have invented a new and useful Adjustable Stack-Protector, of which the following is a specification.

Our invention has for its object the construction of a shield for protecting stacks of hay, grain, and the like, which is detachably connected in a manner to conveniently take it apart and store away, and which is adjustable in regard to the location of the hood or roof, which roof may also be supported in a fixed position at any point, all by a simple and conveniently-operated mechanism. Its construction consists in a vertically-located hollow pipe on which a hood is located in a manner to be vertically adjusted by means of a chain or cord located in the pipe and connecting with the hood and a crank-shaft.

In the accompanying drawings, forming a part of this specification, Figure 1 shows the upper part of the device with half of the hood removed; Fig. 2, top view of the hood; Fig. 3, lower portion of the device, showing the crank arrangement; Fig. 4, broken portion of the hood; Fig. 5, top view of pipe-support to be located in the ground; Fig. 6, broken portion of the hood, showing the construction of the flange of the collar; Fig. 7, top view of the chain, shaft, and crank; Fig. 8, side view of same; Fig. 9, cross-section of hood, showing its construction.

B is the hollow pipe, having portions broken away, showing chain $c''$, Figs. 1 and 2. C is a horizontal hollow pipe, terminating at the outer side of the stack with a crank-frame, H. These pipes B and C are detachably connected with joint F by being screwed in at joints $h$ $h$. All joints $h$ shown are thus constructed. In joint F and casting on top of pipe B are located chain pulleys $e'$ $e'$.

D is the pipe-support, made in the form of a cross, and is located beneath the ground L.

$a$ $e$ are cast collars, into which pipe B and support A are detachably connected at $h$ $h$.

In crank-frame H is located roller $f$, with crank $r$. The handle-catch $a'$ of the ratchet $t$ is pivoted to one arm of frame H. The handle $a''$ is constructed and pivoted in the same manner, and constitutes a break, Fig. 8, when letting down hood T. The hood T is usually made in four detachable quarters, (may be more or less in number,) preferably of sheet-iron, each part consisting of pieces T, Fig. 2, seamed together, $h'$, Fig. 9. The mode of detachably connecting these sections is shown at $y$, detachable bolts $n$ being employed to secure them together, Fig. 9. The hood T thus formed is funnel form. E is a collar crowning the hood and surrounding pipe B. This collar extends well above the hood around the pipe, thus acting as a brace to hold the hood level. The flange $c$ of the collar may be corrugated to fit down snugly over seams $h'$, Fig. 6. The flange $c$ is made integral with the collar E, and is detachably connected with the hood T by bolts O. The chain $c''$ connects with the collar E.

M is an adjustable rest located around pipe B, and held at any point desired by a set-screw, upon which the hood T may be allowed to rest, taking the strain off from the chain.

In the operation the stack is built around pipe B under hood T. With this device the stack need not be finished off on top and shingled with the hay or straw in the usual manner, for the hood is lowered down upon or near to the top of the stack, thus making a sure protection.

Such devices will be found of great utility when making the stack in case of a storm, as the hood can be quickly let down over the stack till work can be resumed again.

When the device is not in use all the parts constituting the construction can be taken apart, when they can readily and easily be lifted and carried to other locations or stored away.

What we claim as new, and desire to secure, is—

1. A stack-protector consisting of the vertical hollow pipe with its pulleys, chain, crank, and hood, all constructed and arranged to operate substantially as set forth.

2. In a stack-protecting device, the lower joint, bearing pulley, and having the pipes detachably connected therewith, located vertically above and below and horizontally from it, the cap at the apex of the vertical pipe with its pulley, the hood, chain, and crank device, all in combination, substantially as specified and shown.

3. A stack-protector consisting of the verti-

cal and horizontal pipes, with hood and chain, the crank, shaft, ratchet, and brake, substantially as set forth.

4. The conical hood composed of the seamed parts, detachably connected by bolts, and the collar, detachably bolted on top of said hood, all substantially as described and shown.

5. The hood composed of the seamed parts combined with the collar having the corrugated flange integral therewith and secured to the hood, all substantially as set forth.

JOB HOEK.
WOUTER HOEK.

Witnesses:
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