



4. The combination, substantially as set forth, of the parallel yokes adapted to embrace a pipe, an endless-chain cutter traveling between said yokes, a rotatable sprocket-pulley, around which the chain cutter passes, and an adjustable swinging frame, in which the pulley is mounted, hinged to the yokes.
5. The combination, substantially as set forth, of a frame D, adapted to embrace a pipe, the sprocket-pulley, and the endless-

chain cutter crossed and passing around the pulley in a reverse direction to the direction in which it passes around the pipe.

In testimony whereof I have hereunto subscribed my name.

SYLVESTER P. DENISON.

Witnesses:

EDWARD C. DAVIDSON,
MAMIE J. KELLEY.