

No. 766,172.

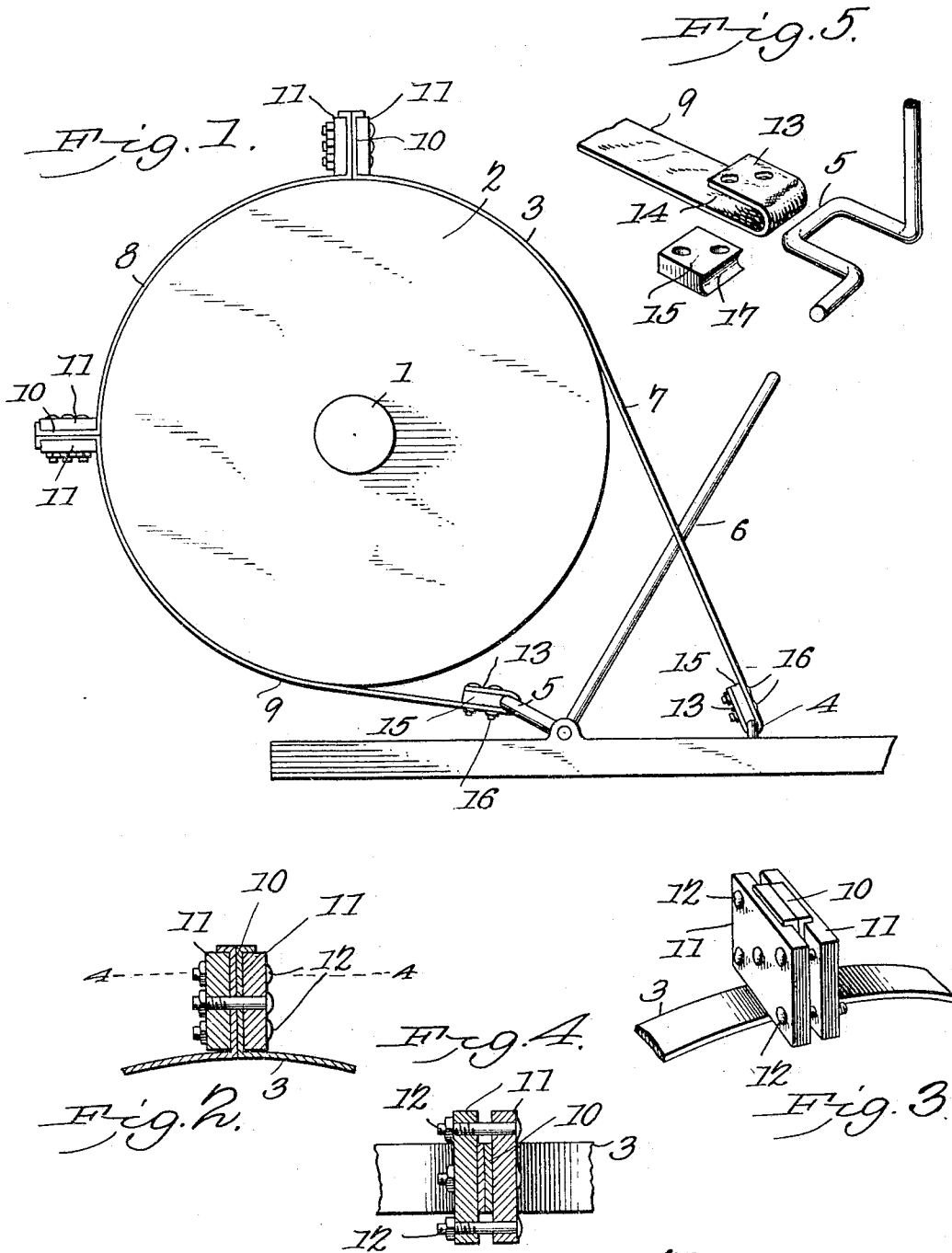
PATENTED AUG. 2, 1904.

W. N. DUFFORD.

BAND BRAKE.

APPLICATION FILED OCT. 23, 1903.

NO MODEL.



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM NELSON DUFFORD, OF FINDLAY, OHIO.

BAND-BRAKE.

SPECIFICATION forming part of Letters Patent No. 766,172, dated August 2, 1904.

Application filed October 23, 1903. Serial No. 178,276. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM NELSON DUFFORD, a citizen of the United States, residing at Findlay, in the county of Hancock and State of Ohio, have invented a new and useful Band-
5 Brake, of which the following is a specification.

My invention relates to band-brakes such as are used in connection with well-drilling
10 machines and shown and described, but not claimed, in Letters Patent No. 735,222, granted to me August 4, 1903, and has for its objects to provide a device of this character in which the brake-band may without injury be
15 reduced to compact form for transportation in moving the machine from place to place and in setting up or taking down the machine be readily engaged with or disengaged from the operating-lever.

To these ends the invention comprises the novel details of construction and combination of parts more fully hereinafter described.

In the accompanying drawings, Figure 1 is a side elevation illustrating my improved brake
25 applied for use. Fig. 2 is a detail section on an enlarged scale. Fig. 3 is a detail perspective view. Fig. 4 is a detail section on the line 4 4 of Fig. 2. Fig. 5 is a detail perspective view.

Referring to the drawings, 1 indicates a winding-drum, 2 a brake-wheel fixed thereon, and 3 the brake-band surrounding the wheel and having one end stapled or otherwise fixed
30 to a stationary member 4 and the other connected with the crank-arm 5 of an operating-lever 6. These parts, with the exception of the brake-band, may be of the construction illustrated in my prior patent or of other preferred construction and arrangement, inas-
35 much as they constitute no part of the present invention.

The band 3 is in accordance with my invention composed of a plurality of sections 7, 8, and 9, arranged end to end and having their
45 meeting ends right-angularly bent to produce outwardly-projecting abutting flanges 10, carried one upon the end of each of the sections and adapted to meet in pairs.

11 indicates a series of filling blocks or plates
50 disposed one upon the outer face of each flange

10 and each pair of blocks being designed to receive between them a pair of the meeting flanges 10, the outer ends of which latter are angularly bent or turned downward upon the outer edges of the blocks, thus providing,
55 in effect, recesses in which the latter are seated. The ends of the blocks or clamping members 11 project beyond the transverse edges of the flanges 10 and are perforated for the reception of clamping-bolts 12, which extend through
60 the blocks 11 at points beyond the flanges and are operable for drawing the blocks or members together to tightly clamp the flanges between them, thus forming between the band-
65 sections a firm rigid connection which will not yield under longitudinal stress upon the band, whereby a sectional band is produced which in practice will be as effective as the usual continuous or one-piece band. It may
70 here be remarked that the one-piece brake-bands, such as are now in use and which are composed of metal and of great length, are objectionable for the reason that when folded for transportation they readily bend or kink, causing surface defects and irregularities
75 which it is practically impossible to remove and which when once formed seriously impair the band.

By my invention is produced a band which
80 may be readily disjointed and packed for transportation and by which the above-mentioned objections are in a great measure overcome, if not wholly obviated.

In order to facilitate connection and disconnection of the ends of the band with the op-
85 erating-lever 6 and fastening-staple 4 while setting up or taking down the machine, and thus also permitting ready disengagement of the parts for transportation, I fold or bend the ends of the band back upon its body por-
90 tion, as at 13 in Figs. 1 and 5, thus producing a space or socket 14 of a width equal to the diameter of the member which it is to engage—such, for instance, as the crank-arm 5 of the lever—and seat within said socket a re-
95 taining block or element 15, removably secured in place by bolts or the equivalent 16. The outer end wall of the socket 14 is curved to conform to the curvature of the member 5, as is also the wearing-face 17 of the block 100

which lies in contact with the member. Thus the block and wall of the socket conjointly form a circular journal-opening for receiving the member. It is apparent that in practice 5 the bolts 16 may be readily withdrawn and the block removed, thereby permitting engagement or disengagement of the band with the member and the band and lever being disconnected for separate transportation.

10 From the foregoing it will be seen that I produce a device of simple construction which will be efficient in operation and one which is admirably adapted for the attainment of the ends in view. It is to be understood, how- 15 ever, that I do not limit myself to the precise details herein set forth, inasmuch as minor changes may be made therein without departing from the spirit or scope of the invention.

20 Having thus described my invention, what I claim is—

1. A brake-band comprising a plurality of sections having outturned meeting flanges, clamping-plates arranged in pairs to receive the flanges between them, said plates being 25 extended and perforated at points beyond the transverse edges of the flanges and the latter

being of a uniform width relative to the adjacent portion of the band, and clamping-bolts extended through the perforations.

2. A brake-band comprising a plurality of 30 sections having outturned meeting flanges, clamping-plates arranged in pairs to receive the flanges between them, the outer ends of the flanges being turned down permanently upon the adjacent edges of the plates, and 35 means for connecting the plates.

3. A brake-band comprising a plurality of sections having outturned meeting flanges, clamping-plates arranged in pairs to receive the flanges between them, the outer ends of 40 the flanges being turned down permanently upon the adjacent edges of the plates and the latter extended and perforated beyond the transverse edges of the flanges, and clamping-bolts extended through the perforations. 45

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

WILLIAM NELSON DUFFORD.

Witnesses:

J. M. PLATT,

EDWARD DAVIS.