

(No Model.)

A. F. BERNARD.
ATTACHMENT FOR WHEELED SCRAPERS.

No. 526,677.

Patented Oct. 2, 1894.

Fig. 1.

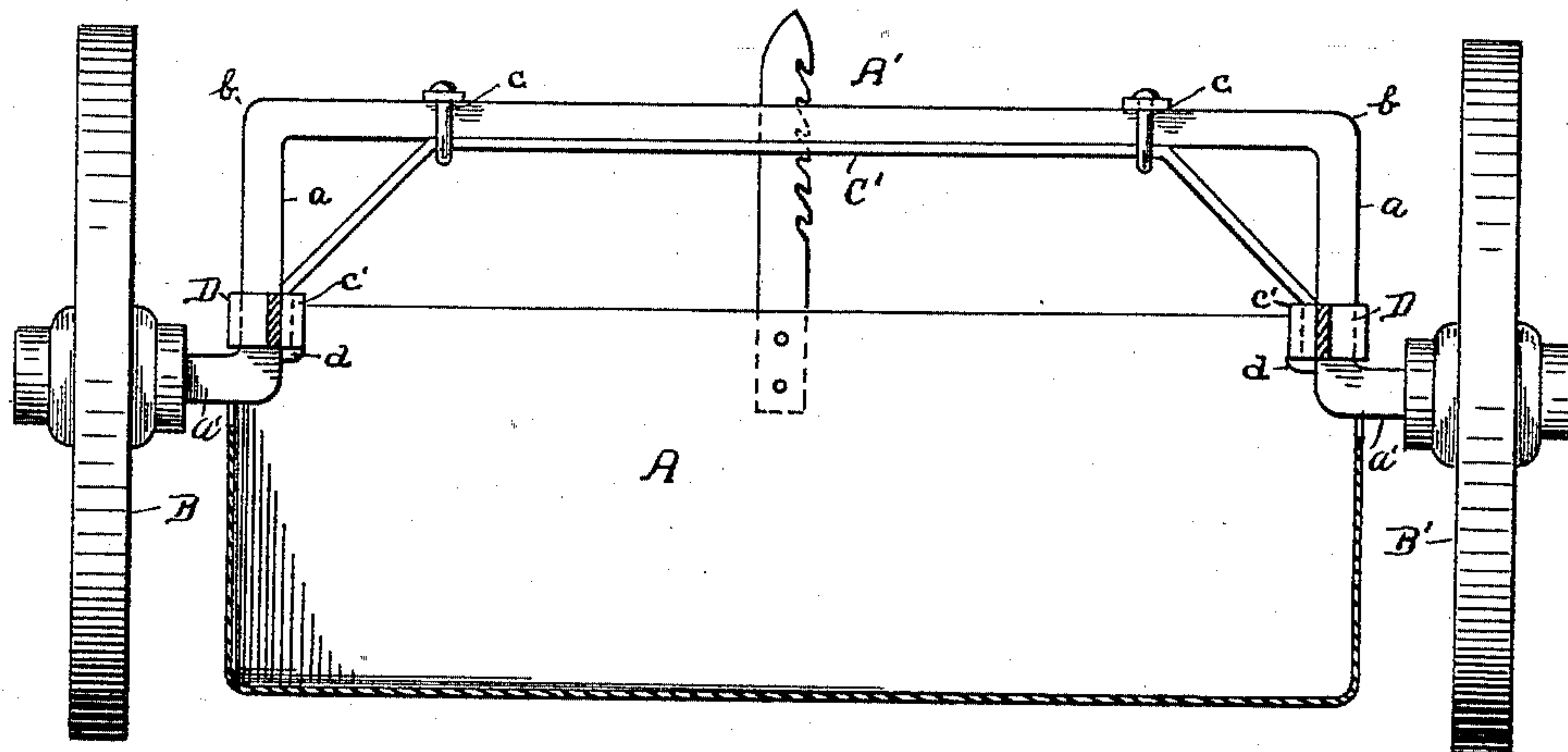


Fig. 2.

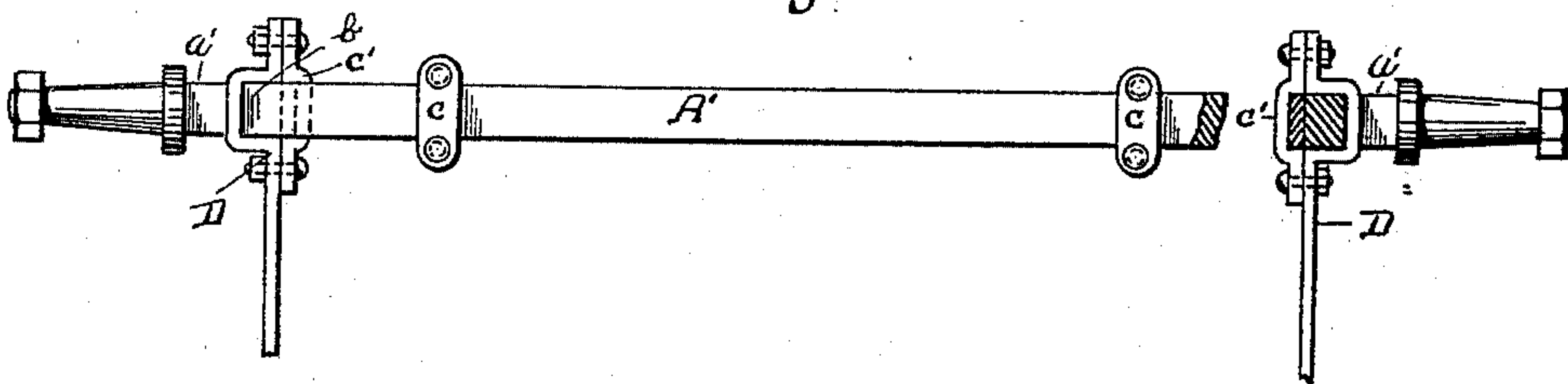
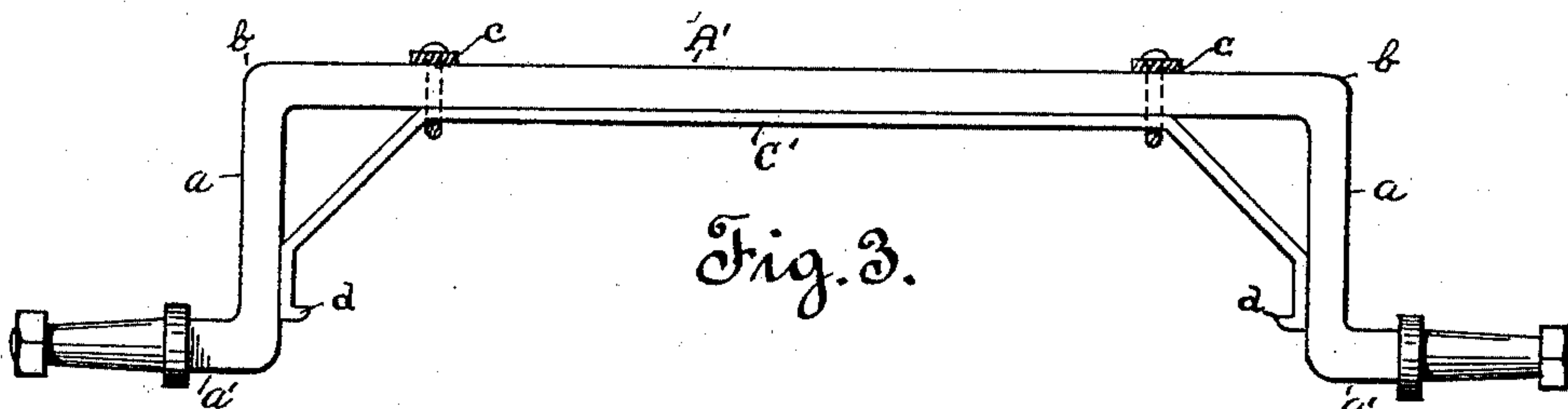


Fig. 3.



Witnesses.

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UNITED STATES PATENT OFFICE.

ALFRED F. BERNARD, OF SAN LUIS OBISPO, CALIFORNIA.

ATTACHMENT FOR WHEELED SCRAPERS.

SPECIFICATION forming part of Letters Patent No. 526,677, dated October 2, 1894.

Application filed April 24, 1894. Serial No. 508,827. (No model.)

To all whom it may concern:

Be it known that I, ALFRED F. BERNARD, a citizen of the United States, residing at San Luis Obispo, in the county of San Luis Obispo and State of California, have invented certain new and useful Improvements in Attachments for Wheeled Scrapers; and I do hereby declare the following to be a full, clear, and exact description of said invention, such as will enable others skilled in the art to which it most nearly appertains to make, use, and practice the same.

My present invention relates to a new and useful strengthening attachment for the axle of a wheel scraper, which is designed for use more especially in connection with that class of scrapers fully set forth and described in the application for Letters Patent filed by me in the United States Patent Office on the 14th day of February, 1894, which application bears Serial No. 500,414.

From practical working of the machine set forth and described in the aforesaid application, Serial No. 500,414, I have ascertained that the strain caused by the addition of the mechanism which I have added to this class of scrapers, as fully appears in said application, tends to spread the axle apart, which causes the body of the scraper to fall or drop to such an extent as to make the machine absolutely useless until a new axle has been supplied, and that owing to the height of the axle above the body of the scraper the same often breaks at the top bend thereof. These defects I find may be successfully overcome by securing beneath the axle a supplemental axle or strengthening band or plate, the ends of which are bent downward at an angle and connected to the vertical portion of the axle so as to serve as a brace in order to overcome the spreading of the axle.

Referring to the drawings forming a part of this application—Figure 1 is a cross sectional front elevation of a scraper, showing fully the construction and arrangement of the strengthening plate or beam for the axle. Fig. 2 is a top plan view of the axle, partly broken away. Fig. 3 is a front elevation of the axle and strengthening plate or beam connected thereto.

The letter A indicates the body of the

scraper, which is connected to the axle A', in a manner similar to that shown in my aforesaid application, Serial No. 500,414. The ends of the axle A' are bent downward for a distance, as shown, and thence at a right angle, the downward portion of the axle being shown by reference letter *a*, and the right angular portion by letter *a'*. Upon this portion of the axle I secure the supporting wheels B, B'. It will thus be noticed that the body of the axle is raised considerably above the axis of the supporting wheels. This bending of the axle weakens the same at the point *b*, which has a tendency to permit the spreading thereof, hence lowering of the scraper body suspended thereunder. The weakness of the axle created by this bending also causes the same to readily break at the point *b*, when the machine is subjected to extra hard usage.

Where the work of grading is being conducted in a thinly settled portion of the country, as in the grading of railroads, the breakage of an axle is a serious damage, owing to the delay which ensues before a new axle can be secured to take the place of the broken one. Consequently the importance of providing against such an accident will be readily apparent to those conversant with the working of this class of machinery. In order to overcome these defects and to strengthen the axle of the scraper I provide the plate or beam C', which is secured to the under face of the body portion of the axle by means of the clips or hangers *c*. The ends of this plate or beam are bent downward at an angle and are connected to the vertical portion of the axle by means of the plates *c'*, which plates embrace the end of the beam and are bolted to the clip like end of the forwardly extending arms D. These arms connect with the trigger mechanism of the scraper as fully set forth and described in my aforesaid application, Serial No. 500,414. By thus securing the strengthening beam or plate to the axle I overcome the necessity of boring holes in the axle in order to secure the beam or plate by means of bolts. The ends of the beam or plate have cast or otherwise formed thereon the inwardly projecting lug or shoulder *d*, which serves to hold the plates *c'*, in position.

By the use of my beam or plate in connec-

tion with the axle of the scraper I am enabled to make employment of a much lighter axle than could otherwise be successfully utilized for the work required and at the same time secure a much stronger axle than now is used upon this class of machinery.

Having thus described my invention, what I claim as new, and desire to secure protection in by Letters Patent of the United States, is—

1. In a wheeled scraper, the combination with the arched axle made in one integral structure, of the strengthening beam or plate removably secured to the under side of the shoulder or body portion of the axle and having its ends turned downward, and fastening

plates passed around the ends of the strengthening plate and the arms of the axle.

2. The combination with the arched axle, of a strengthening plate or beam having its central portion removably secured to the shoulder of the axle and its ends bent downward and provided with inwardly projecting lugs, and fastening plates resting on said lugs and passing around the ends of the plate and the arms of the axle.

In testimony whereof I affix my signature in presence of two witnesses.

ALFRED F. BERNARD.

Witnesses:

N. A. ACKER,

DANIEL HANLON.