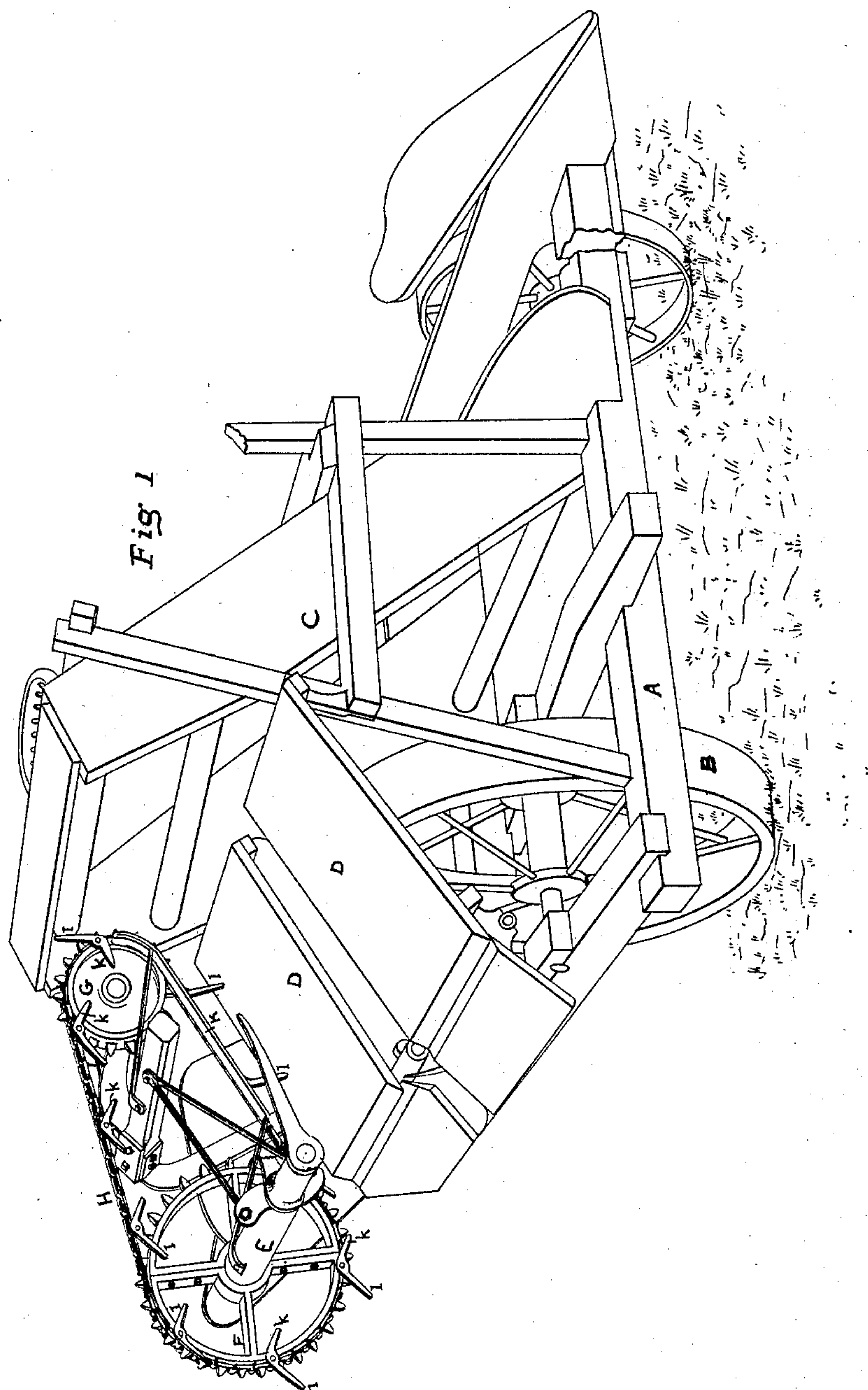


2 Sheets—Sheet 1.

AUTOMATIC BINDER.

Patented Dec. 14, 1886.



A. B. Smith
A. B. Rawlings

Wm N. Whiteley
Wm Bayless

By R. O. Smith
Their Attorney

(No Model.)

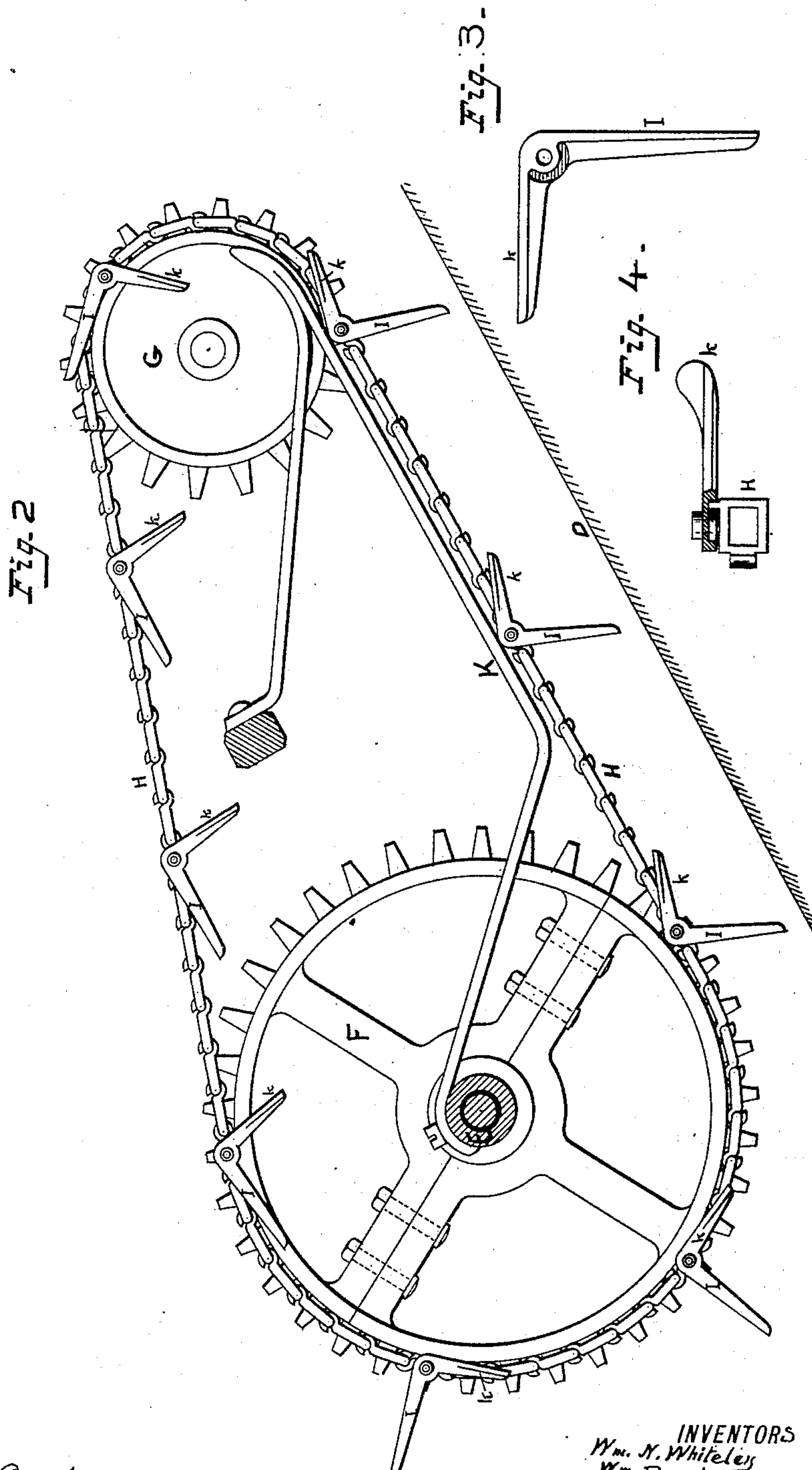
2 Sheets—Sheet 2.

W. N. WHITELEY & W. BAYLEY.

AUTOMATIC BINDER.

No. 354,286.

Patented Dec. 14, 1886.



WITNESSES

Con't. A. Cooper
Al. Rawlings

INVENTORS
Wm. N. Whiteley
Wm. Bayley

By their Attorney
R. O. Smith

UNITED STATES PATENT OFFICE.

WILLIAM N. WHITELEY AND WILLIAM BAYLEY, OF SPRINGFIELD, OHIO;
SAID WILLIAM BAYLEY ASSIGNOR TO SAID WILLIAM N. WHITELEY.

AUTOMATIC BINDER.

SPECIFICATION forming part of Letters Patent No. 354,286, dated December 14, 1886.

Application filed November 2, 1885. Serial No. 181,622. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM N. WHITELEY and WILLIAM BAYLEY, of Springfield, in Clark county and State of Ohio, have invented
5 new and useful Improvements in Automatic Binders; and we do hereby declare that the following is a full and accurate description of the same.

It is highly desirable that the heads of the
10 grain shall be drawn downward over the binder-deck away from the elevator and from the in-flowing grain, to effect a separation of the grain of the bundle from the unbound grain and thereby facilitate the discharge of the bound
15 bundle. Various devices have already been made for this duty, and therefore we do not claim, broadly, a head-rake applied to a binder, but confine ourselves to the kind of rake herein shown and described, which consists of an
20 endless chain with fingers attached to enter and sweep the grain downward into the binder.

In the accompanying drawings, Figure 1 is a perspective view of our machine. Fig. 2 is a transverse section of a part of the binder
25 showing the invention in elevation. Figs. 3 and 4 are details.

A is the main frame supported upon the main bearing and driving wheel B.

C is the elevator-frame, and D is the platform or deck of the automatic binder.
30

E is the upper arm of the binder-frame, the binder represented being of the Appleby type. A sprocket-wheel, F, is mounted on said upper arm, and a similar sprocket, G, is mounted
35 on the frame near the upper edge of the binder where it joins the elevator. These two sprockets are located in the same plane. A chain, H, passes over and is carried by said sprockets. Motion is transmitted to said sprockets and
40 chain from the motive gearing of the binder by chain-gear or otherwise, as convenient. At short intervals the chain H is provided with hinged fingers I, which hang down and are held in a vertical position as they pass

downward over the deck D, penetrating and
45 forcibly moving the grain down to the binder.

A guide track, K, is mounted on the frame in proper position to guide and support the teeth against the resistance of the straw as it moves over the deck D, and at the same time
50 the arms L slide on said cam-track, and the teeth are thereby kept upright and in working position.

To apply the sprocket-wheel F to the binder-frame of machines already built requires that
55 said wheel shall be made in two parts, as shown; but if at the time of building the binder it is contemplated to employ the sprocket-wheel F, then, as it is evident, the upper arm of the binder-frame may be constructed to let
60 said wheel pass over the end of said arm and reach its bearing.

Having described our invention, we claim—

1. A sprocket or chain wheel mounted loosely upon the upper arm of the binder-frame combined with a similar sprocket-wheel mounted
65 on the frame near the head of the elevator, driven as described, and a carrying-chain around said wheels to turn the heads of the grain down the binder-table for the purpose
70 of facilitating the discharge of the bound bundles.

2. A sprocket or chain wheel mounted loosely upon the upper arm of the binder-frame, a similar sprocket-wheel mounted on the frame
75 near the head of the elevator, driven as described, a carrying-chain around said wheels combined with fingers jointed to said chain, and a controlling-track to hold said fingers in proper action, whereby the heads of the grain
80 are moved downward over the deck of the binder to facilitate the discharge of the bound bundles.

WM. N. WHITELEY.
WILLIAM BAYLEY.

Witnesses:

L. PHILLIP,
W. F. BEVITT.