

No. 786,205.

PATENTED MAR. 28, 1905.

A. GERTH.
FANNING MILL.

APPLICATION FILED SEPT. 1, 1904.

2 SHEETS—SHEET 1.

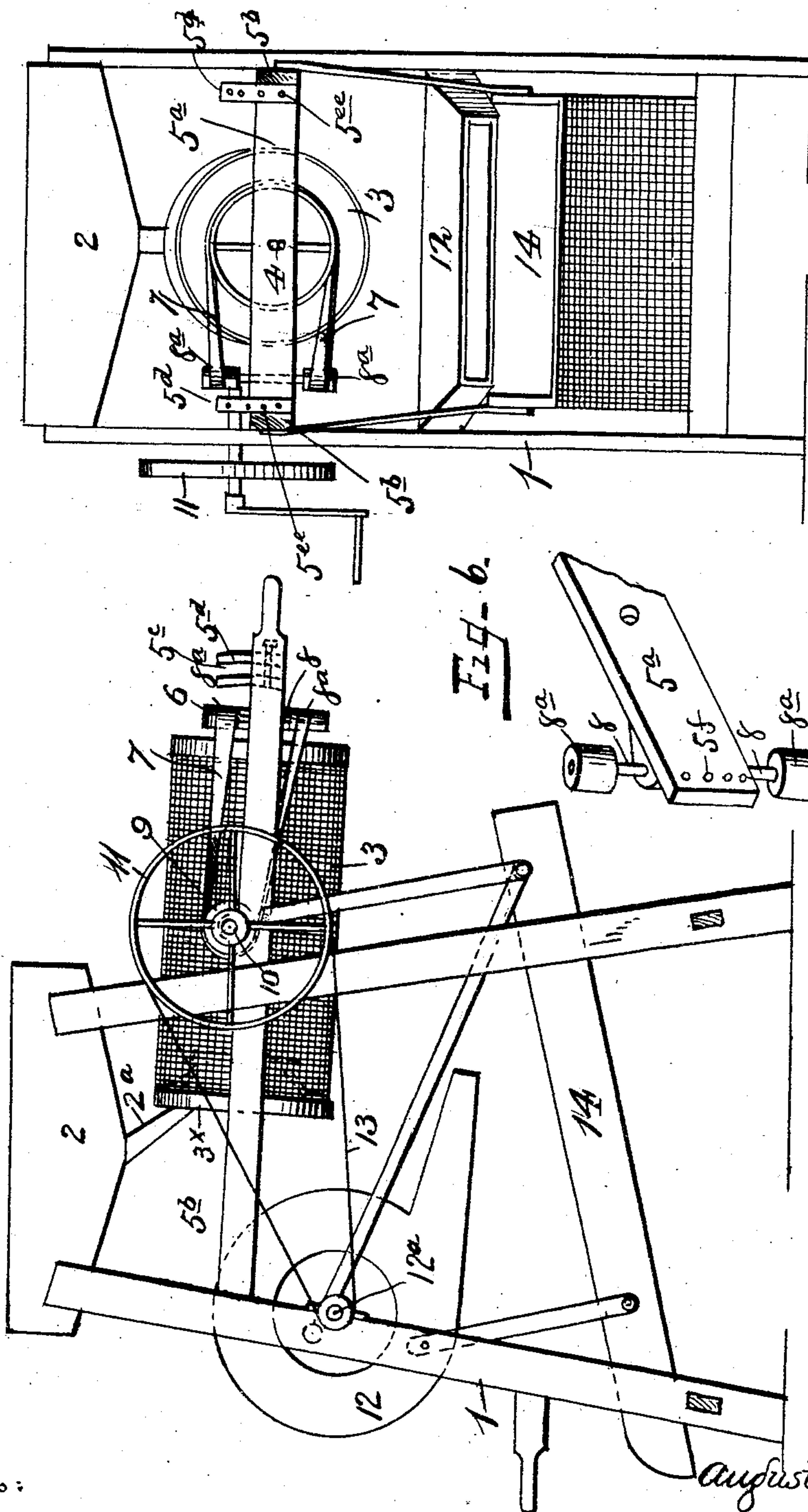


Fig. 4

Fig. 3

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Witnesses:

W. H. Curand.

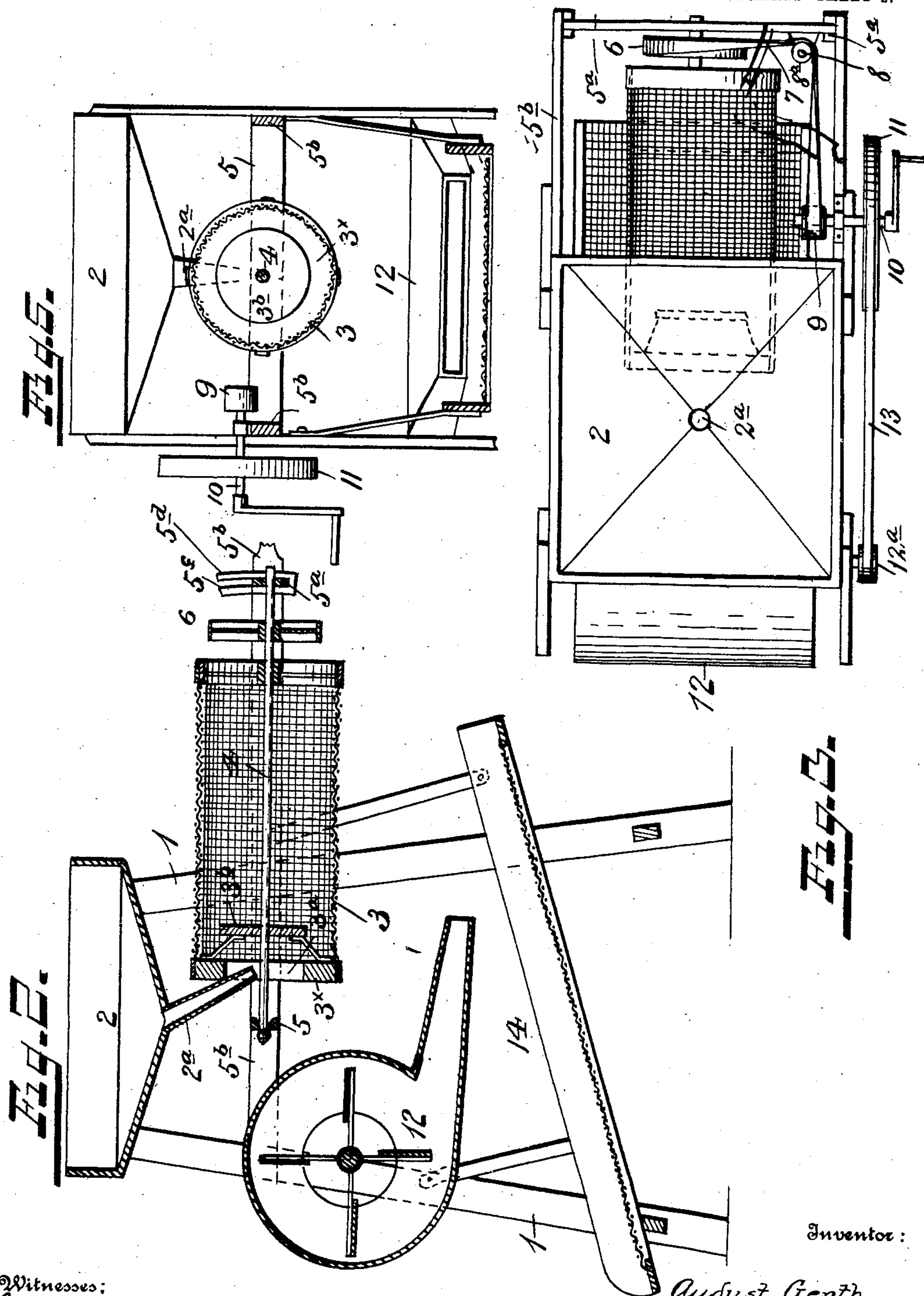
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W. H. Curand.

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UNITED STATES PATENT OFFICE.

AUGUST GERTH, OF ESTELLINE, SOUTH DAKOTA, ASSIGNOR OF ONE-HALF
TO MORTON S. LIEBENSTEIN, OF ESTELLINE, SOUTH DAKOTA.

FANNING-MILL.

SPECIFICATION forming part of Letters Patent No. 786,205, dated March 28, 1905.

Application filed September 1, 1904. Serial No. 223,009.

To all whom it may concern:

Be it known that I, AUGUST GERTH, a citizen of the United States, residing at Estelline, in the county of Hamlin and State of South Dakota, have invented new and useful Improvements in Fanning-Mills, of which the following is a specification.

My invention relates to improvements in fanning-mills.

Said invention has for its object to provide for the cleaning of grain in an expeditious and effective manner and to simplify the construction of parts and to cheapen the manufacture of the same; and to these ends said invention consists of certain structural features, substantially as hereinafter more fully disclosed, and particularly pointed out by the claims.

In the accompanying drawings, illustrating the preferred embodiment of my invention, Figure 1 is a side view thereof. Fig. 2 is a vertical sectional elevation produced longitudinally of the machine. Fig. 3 is a plan view thereof. Fig. 4 is what may be called a "rear end elevation" of the same, and Fig. 5 is a vertical transverse section in part of the machine produced through the rotary sieve or screen. Fig. 6 is an enlarged broken perspective view showing more fully the idler-pulleys for changing the direction of the sieve or screen actuating belt.

In the carrying out of my invention I provide a suitably-constructed upright frame 1, within which is arranged the operative parts thereof, said frame also having secured thereon a feeding-hopper 2.

A cylindric sieve or screen 3, arranged just below the hopper 2, is rotatably mounted in position by means of, and has passing longitudinally therethrough, a journal or shaft 4, said shaft bearing in and passing through cross-pieces 5 5^a, respectively, one being fixed between parallel lateral bars 5^b, secured to the uprights of the frame 1. The other cross-piece, 5^a, is adjustable substantially vertically, as and for the purpose presently described. Said sieve or screen 3 has the head 3^x thereof at its receiving end produced with a feed-opening 3^a, into which extends the lower end of a spout or chute 2^a, secured centrally

to the bottom of the hopper 2 to deliver the contents of the last noted into said sieve or screen for treatment, as later disclosed. Within said sieve or screen and suitably secured thereto a short distance inward from and opposite to said feed-opening is a disk or bracket 3^b, through which passes, and primarily serving as a support for, the shaft or journal 4 at that end of said sieve. The opposite end of said sieve has suitably held thereto a pulley 6, loosely through which passes the shaft or journal 4, and which pulley is engaged or driven for rotating said sieve by an endless belt 7, whose upper and lower portions engage rolls or idlers 8^a, arranged upon a common journal or shaft 8, suitably secured upon the cross-piece 5^a, said belt also engaging and being driven by a pulley 9, secured upon a handled shaft 10, suitably journaled upon the lateral bars 5^b. Upon the shaft 10 is also secured a large wheel or pulley 11, the purpose of which will appear later. The adjustability of the cross-piece 5^a is provided for by the disposing of its end portions within vertical slots 5^c, more or less curved for obvious reasons, produced in upstanding arms or bars 5^d, secured to the lateral bars 5^b, and by adjusting-pins 5^e, inserted through holes or perforations 5^{ee}, provided in said arms, and perforations 5^f in said cross-piece 5^a, as will be readily appreciated. This arrangement provides for the consequent adjustment of the rotary sieve according to the declination it may be required to give the same, as in treating or cleaning small or large grain the smaller the grain the greater the declination; consequently the larger the grain the less the inclination.

A rotary fan 12, whose casing or housing is suitably secured in position and having a chute or tapered extension, is driven by an endless belt 13, engaging a pulley 12^a on the fan-shaft and the pulley or wheel 11 on the handled shaft 10, from which it will be noted that a blast may be generated simultaneously with the actuation or rotation of the sieve 3 and said blast be delivered upon, and thus dispose of the chaff falling from, said sieve as the grain is being treated within the last noted.

Suitably suspended, so as to be vibrated, below the rotary sieve or screen 3 is a forwardly-inclined rectangular screen or sieve 14, receiving whatever of the grain treated within said rotary sieve falling therethrough and suitably delivering the same as may be required, the body or bulk of the grain after treatment by the rotary sieve being discharged therefrom out through its rear end, as will be seen.

Latitude is allowed as to details herein, as they may be changed as circumstances suggest without departing from the spirit of my invention.

I claim—

1. A device of the character described, employing a sieve or screen rotatably mounted in position, a shaft for said sieve or screen, upstanding arms suitably secured in position, and bearings for said shaft or journal, one being a cross-piece received in vertical slots of said upstanding arms, said arms and said shaft-bearing having adjusting perforations, and adjusting-pins adapted to engage said perforations, said cross-piece bearing a shaft equipped with pulleys, a handle-shaft carrying a pulley, and an endless belt engaging said pulleys.

2. A device of the character described, employing a sieve mounted in position, a shaft for said sieve or screen, and bearings for the sieve-shaft suitably supported in position, one being adjustable, said rotary sieve or screen having fixed to its shaft a pulley and said adjustable bearing carrying a vertical shaft equipped with pulleys, a handled shaft carrying a pulley, and an endless belt engaging said pulleys and the pulley of the sieve-shaft.

3. A device of the character described, employing a rotary sieve or screen, means for actuating said sieve, a shaft carrying said rotary sieve, bearings for said shaft, one of which is adjustable, a vibrating screen arranged below said rotary sieve, a rotary fan delivering its blast upon the chaff falling from said rotary sieve, the adjustable shaft-bearing supporting an additional shaft equipped with pulleys, a handled shaft carrying a pulley, and an endless belt engaging said pulleys.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

AUGUST GERTH.

Witnesses:

M. S. LIEBENSTEIN,
HERMAN GERTH.