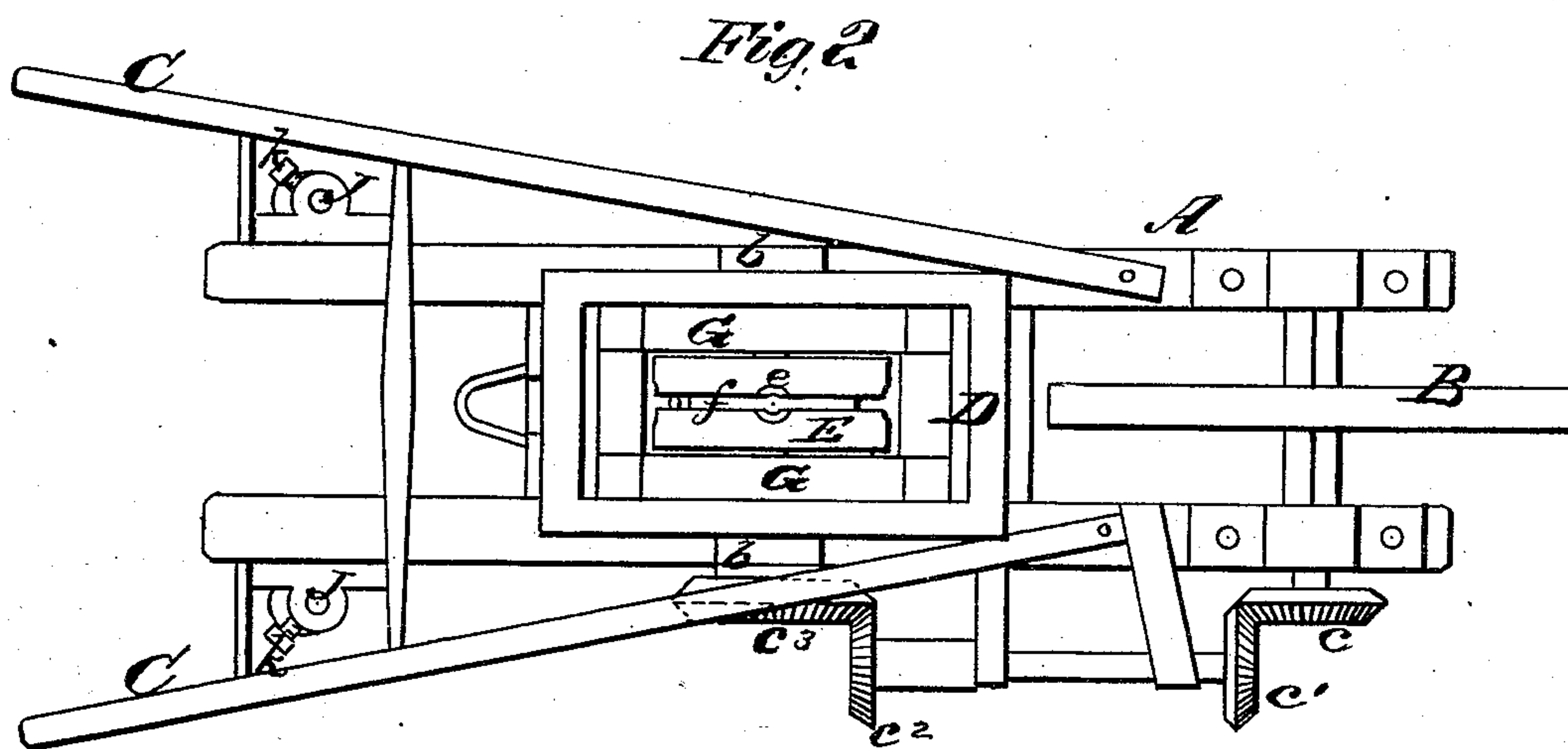
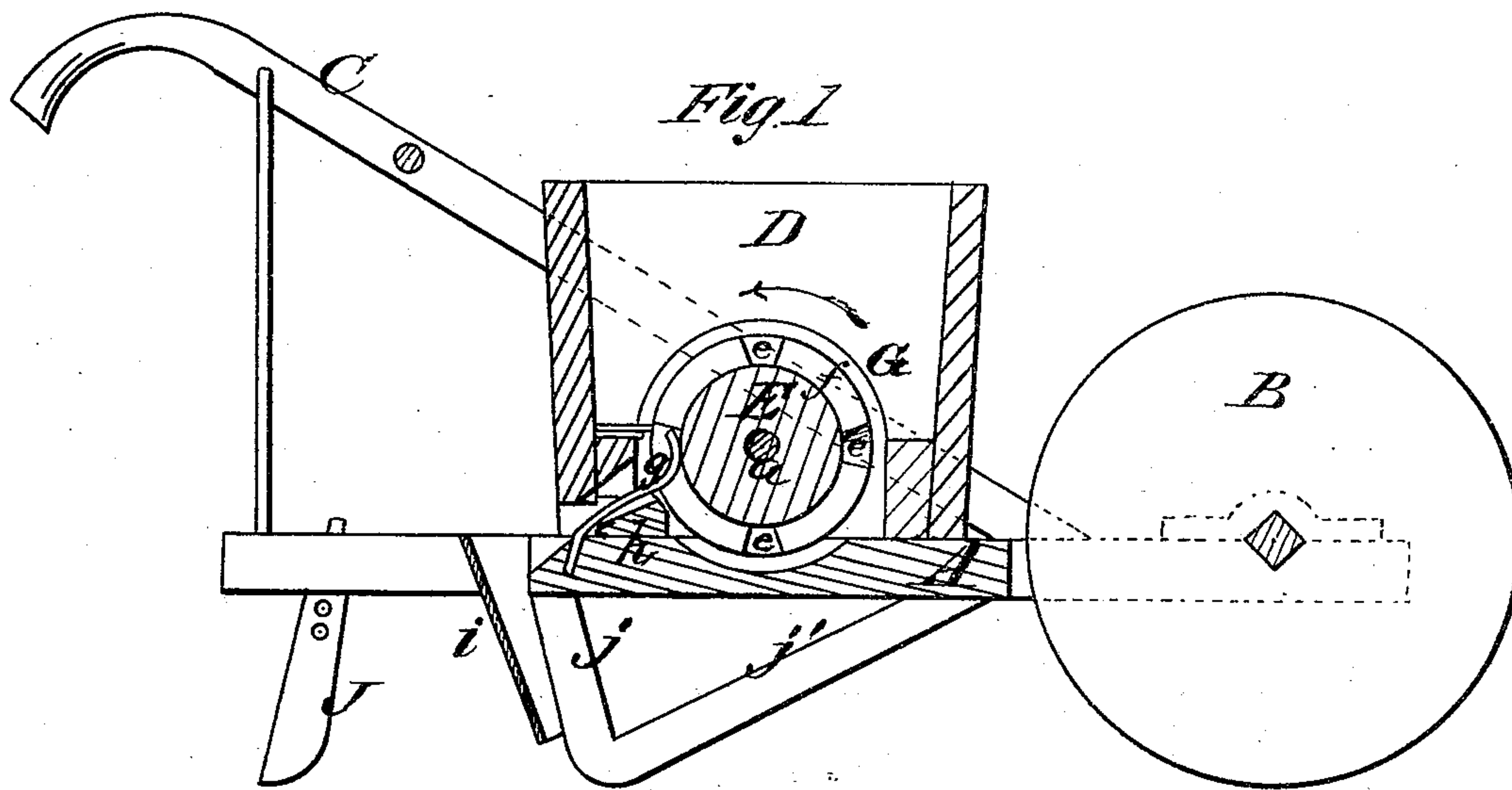


S. J. MILLER.  
Corn-Drills.

No. 157,342.

Patented Dec. 1, 1874.



WITNESSES  
*E. H. Bates*  
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# UNITED STATES PATENT OFFICE.

SAMUEL J. MILLER, OF MUNCIE, INDIANA.

## IMPROVEMENT IN CORN-DRILLS.

Specification forming part of Letters Patent No. **157,342**, dated December 1, 1874; application filed October 6, 1874.

*To all whom it may concern:*

Be it known that I, SAMUEL J. MILLER, of Muncie, in the county of Delaware and State of Indiana, have invented a new and valuable Improvement in Corn-Drills; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a longitudinal section of my corn-drill. Fig. 2 is a plan view.

The object of this invention is to improve the corn-planter for which Letters Patent were granted to Miller and Wright, bearing date on the 25th day of August, 1874, wherein the grains of corn were discharged from their cells by means of a wire applied in a groove in a dropping-wheel.

The nature of my invention consists in the employment of a finger, in combination with the grooved dropper-wheel, for the purpose of compelling the discharge of the grains from their cells at the proper place for the grains to fall into the seed-tube, and be conducted into the furrow.

In the annexed drawings, A designates the frame of the planter, which is mounted on a wheel, B, and provided with handles C C. D designates a hopper, and E a dropping-wheel, which latter is applied on a shaft, *a*, which is supported by standards *b b*, and which receives rotation in the direction of the arrow in Fig. 1 from the wheel B, through the medium of bevel-wheels *c c<sup>1</sup> c<sup>2</sup> c<sup>3</sup>*. The wheel *c<sup>3</sup>* has several circles of teeth on its face, and by adjusting the wheel *c<sup>2</sup>* to these different circles the corn can be dropped at the required distances apart. The wheel E has a number of seed-cells, *e*, in its periphery, which are intersected by a deep annular groove, *f*, and which flare outwardly for the purpose of more readily receiving the grains and discharging the same. The corn is discharged from the cells *e* by means of a finger, *g*, which is secured to the frame A in rear of the dropping-wheel E, and which enters the groove *f* far enough to press the grains out of the cells

as they successively roll around. The charges fall through a channel made in a block, *h*, and are conducted into the drills by means of a tube, *i*, which is secured to the back of a drill-tooth, *j*. The tooth *j* presents a front sharp edge, and its lower end is connected to the lower end of an inclined colter, *j'*. (Shown in Fig. 1.) The colter and the tooth may be formed of a single piece of metal, as shown, and as both are sharpened they will both cut their way through roots, &c., and keep themselves free from obstructions. G G designate two arched cheeks applied on opposite sides of the dropping-wheel, so as to form a bottom for the hopper. These cheeks are higher at their rear ends than at their front ends, and they are of such diameter relatively to the wheel E that a channel, *x*, is formed between them, which greatly facilitates the feed or filling of the seed-cells.

Fig. 3 shows my improved cut-off, which consists of two pieces, *n n'*, of india-rubber secured upon an adjustable block, *m*. Fig. 1 shows the cut-off applied to the dropping-wheel. The upper piece *n* of rubber projects over the edge of the lower piece *n'*, for the purpose of forming a kind of wiper for the periphery of the wheel E, for keeping back the corn when this wheel is revolving. If the rubber pieces *n n'* were not arranged as shown, they would be cut by the grains of corn in the cells pressing on the block below. The elasticity afforded by said arrangement of the rubber pieces prevents them from being injured. J J are two covering-blades, which are secured by set-screws *k k* to the rear ends of frame A, and which can be adjusted at different angles by loosening the set-screws.

What I claim as new, and desire to secure by Letters Patent, is—

The finger *g*, combined with the groove *f* and cells *e* in the dropping-wheel, as described.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

SAMUEL J. MILLER.

Witnesses:

AL. L. WRIGHT,  
C. M. TURNER.