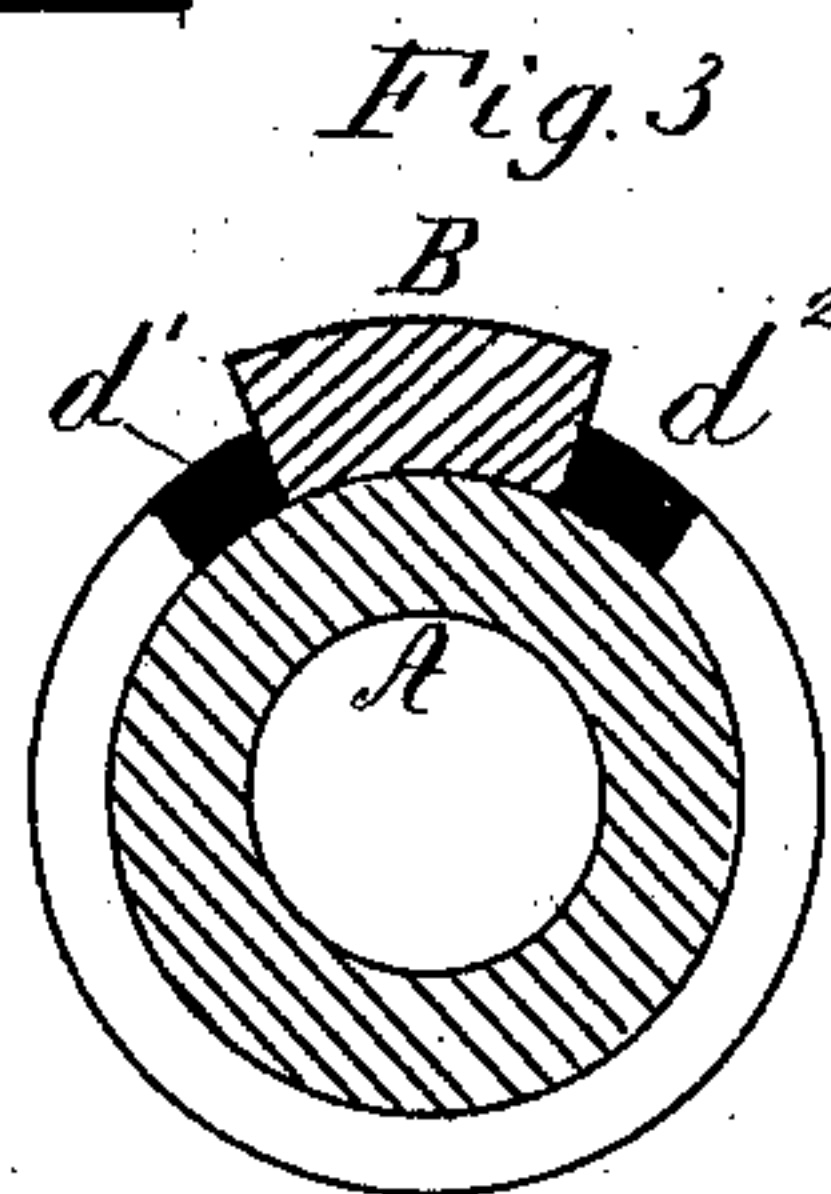
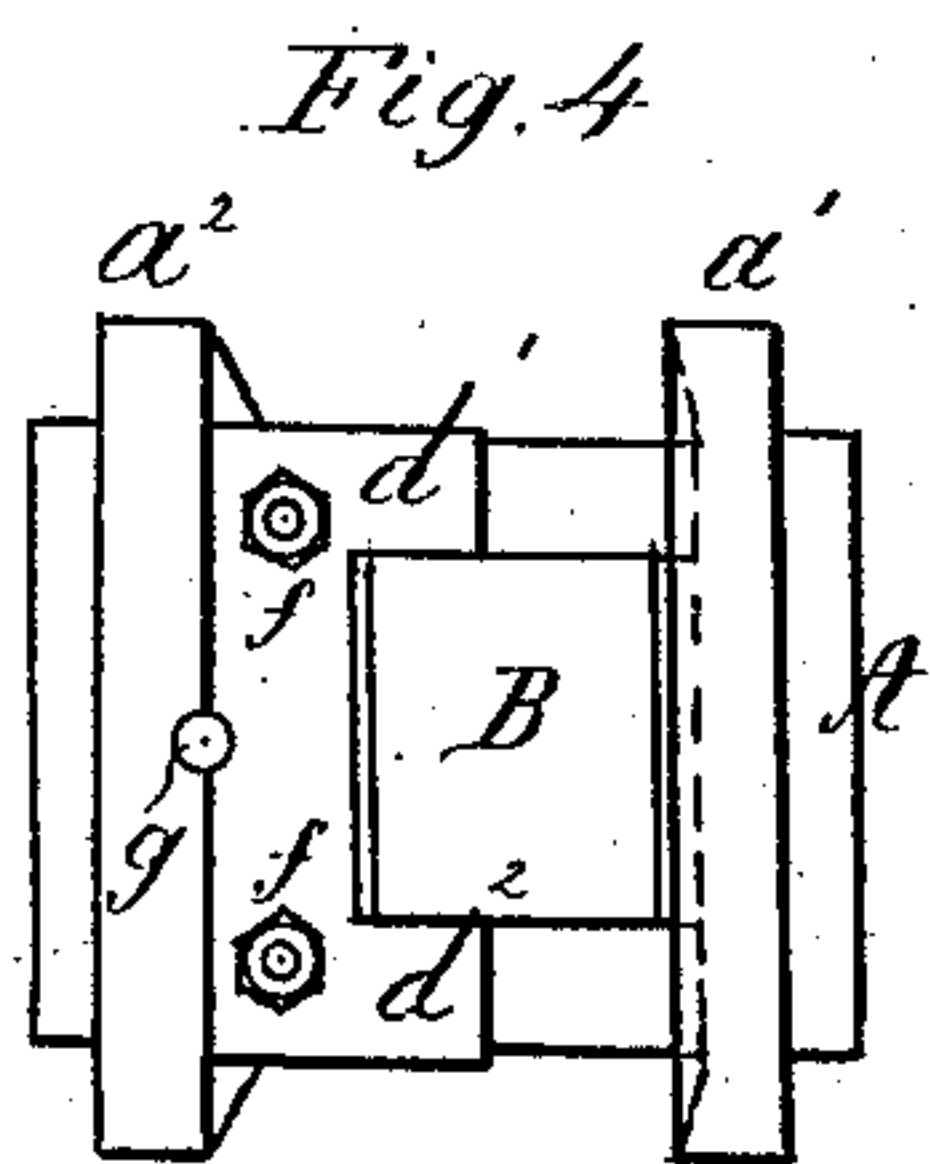
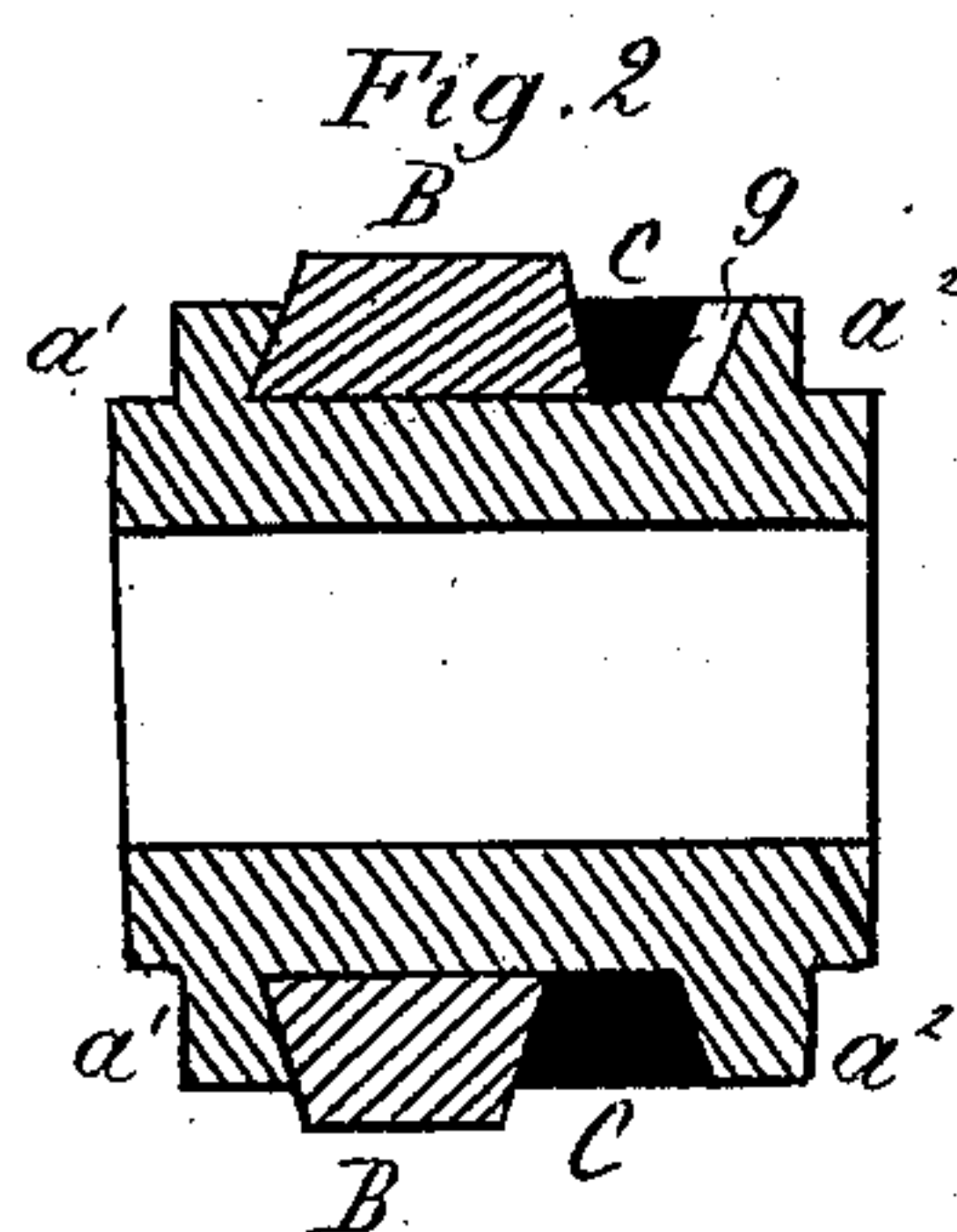
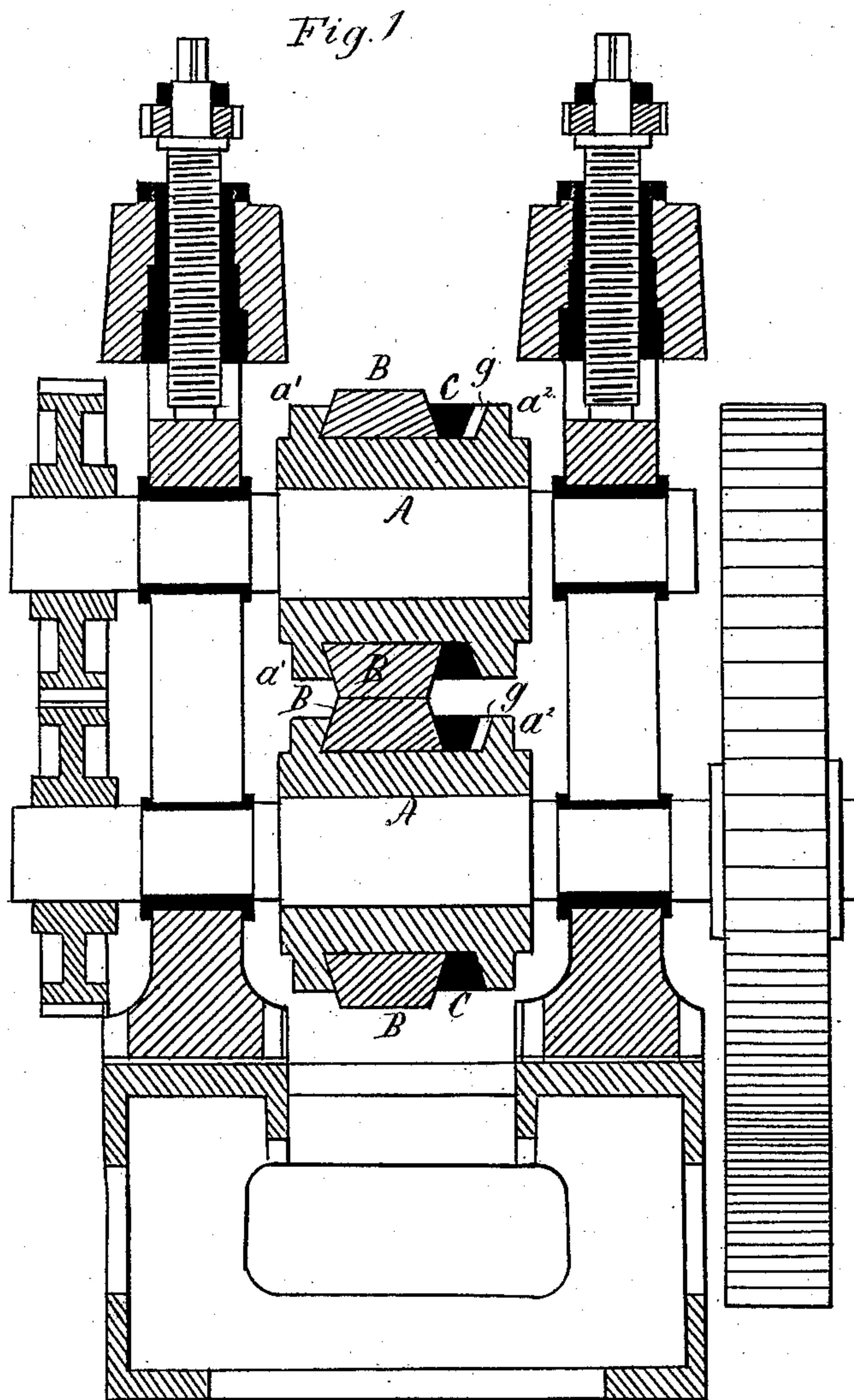


(No Model.)

W. CONRAETZ.  
ROLLING MACHINE.

No. 301,807.

Patented July 8, 1884.



Witnesses  
A. A. Connolly  
J. B. Connolly

William Conraetz  
Inventor  
By Connolly Bros  
Atty's

# UNITED STATES PATENT OFFICE.

WILLIAM CONRAETZ, OF VIENNA, AUSTRIA-HUNGARY, ASSIGNOR TO  
LEOPOLD MERLET & CO., OF SAME PLACE.

## ROLLING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 301,807, dated July 8, 1884.

Application filed January 21, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM CONRAETZ, a subject of the Emperor of Austria, and a resident of Vienna, in the Empire of Austria-Hungary, have invented certain new and useful Improvements in Roller-Mills for Manufacturing Spoons, Forks, and Similar Articles, of which the following is a specification.

In the manufacture of spoons, forks, ladles, and similar articles from sheet-metal blanks it has hitherto been customary either to stamp the blanks in dies or to pass them through rollers in which suitable dies were engraved. The rolling-mills used in the latter process were generally constructed with narrow and thin rollers, and so that all the operations could not be performed by the same mill, and that generally a series of mills had to be used, which considerably increased the expenses of manufacturing. According to the present improvement the roller-mill is so constructed that it can be quickly changed to adapt it for manufacturing all ordinary forms and sizes of spoons, forks, and ladles, and also for rolling the blanks either lengthwise or breadthwise, and for all stages and ordinary modes of manufacture.

The accompanying drawings show a roller-mill constructed according to the present invention.

Figure 1 is a vertical section of the mill. Fig. 2 is a longitudinal section of one of the pairs of rollers. Fig. 3 is an end view, and Fig. 4 a side view, of the same.

Each roller consists of a drum, A, having beveled rims  $a'$   $a^2$ , to receive the dies B and the fastening-plates C. Each fastening-plate C is provided with the projections  $d'$   $d^2$ , between which the die B is situated, and the

plate is fixed to the drum A by means of the screw-bolts  $f$ . The exact fitting of these plates is secured by a notch thereon resting against a pin,  $g$ . Each die B is thus held between the beveled rim  $a'$  of the drum and the beveled side of the plate C, as well as between the projections  $d'$   $d^2$  of the said plate C. Generally four dies, B, may be attached to each drum, and the dies B may be of different breadths, as indicated in Fig. 2, and of different lengths. If the blanks to be rolled are of considerable lengths and the dies B have to be proportionately longer, then fastening-plates may be used which have no projections  $d'$   $d^2$ , thus affording more space for the dies, which may then lie close together and form a complete ring. If broader dies B are used, narrower fastenings C are required, and vice versa.

It is evident that the dies and the fastening-plates may be easily attached and removed or exchanged, as required.

I claim—

1. In a roller-mill for spoons, forks, ladles, and similar articles, the combination of the drums A, exchangeable dies B, and exchangeable fastening-plates C, essentially as and for the purpose described.

2. The combination of the drum A, having beveled rims  $a'$   $a^2$ , with the dies B, having beveled edges, and with the fastening-plates C, correspondingly beveled and held by screws  $f$  and pin  $g$ .

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

WILLIAM CONRAETZ.

Witnesses:

C. O. PAGET,  
E. G. S. MOELLER.