# United States Patent Office.

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Letters Patent No. 111,579, dated February 7, 1871.

## IMPROVEMENT IN PAPER FOR USE IN THE BOTTOMS OF BIRD-CAGES.

The Schedule referred to in these Letters Patent and making part of the same.

I, JASPER H. SINGER, of the city, county, and State of New York, have invented a certain Mat or Paper for Bird-Cages, of which the following is a specification.

### Nature and Object of the Invention.

This invention has for its object the preparation of a paper suitable to be placed in the bottom of bird-cages to receive the refuse and excremental matter which may fall thereon, and to furnish a proper surface for the birds to walk and scratch upon when upon the bottom of the cage.

It is common among those keeping birds in cages to place a piece of paper upon the bottom of the cage to receive the refuse matter, and in some cases a little sand or gravel is sprinkled thereon to form a surface for the birds to walk upon and scratch, and it also, perhaps, serves to some extent to prevent the birds from throwing the seeds, which may be thrown down

by them, out of the cage by scratching.

The object of the present invention is to provide a paper to be placed in the bottom of the cage, which paper shall have a rough sand or gravel surface suitable for the purposes above mentioned, which shall be already prepared for use, and which shall at the same time obviate the objection which applies to paper with loose sand or gravel upon it, that the birds are liable to throw the sand or gravel out of the cage and thus litter the room.

This invention consists in a paper prepared for that purpose by attaching sand or gravel or both to it by means of a farinaceous paste, as hereinafter more fully

set forth.

#### General Description.

In carrying my invention into practice I first cut sheets of paper of the proper size to fit the bottom of the cage, allowing it to extend a little outside of the side bars of the cage, so as to catch the whole litter of the cage as completely as possible. This paper should be strong, and I prefer heavy manilla paper for that purpose.

The paper having been cut into sheets of the proper size, I then cover one side of it with a well-made but not too thick paste made of wheat flour or other far-

inaceous material, and then, before the paste is permitted to dry, sprinkle or sift thereon a sufficient quantity of coarse sand or fine gravel to cover the surface. I then allow the paste to dry, and when it is thoroughly dry I shake off that portion of the sand or gravel which does not adhere to the paste, then press the paper so as to make it flat, when it is ready to be packed into bundles for sale and use.

This paper differs from ordinary sand-paper not only in the fact that it is covered with gravel or coarse sand, instead of being covered with crushed glass, which is unsuited for this purpose, on account of its peculiarly sharp outting edges, which would injure the feet of the birds, but also in the fact that the sand or gravel is attached to the paper by means of a farinaceous paste which is perfectly harmless to the birds in case they should eat it, while in making sand or emery-paper the hard particles are attached to the paper by means of glue. The paste will also give way more readily, allowing the birds to now and then throw off a particle of the sand or gravel, while the glue is more rigid.

Water is also frequently upset in the cage or sprinkled upon the bottom by the birds, and if the sand or gravel were attached with glue this would dissolve it sufficiently to adhere to the feet and feathers of the birds, while the paste is free, or nearly so,

from this objection.

I have mentioned wheat-flour as the proper material for making the paste with which to attach the sand or gravel; but it is obvious that rice-flour, or in fact any farinaceous material, may be used for this purpose with nearly or quite the same good effect.

I do not claim a paper having sand or gravel attached to its surface irrespective of the means by

which it is attached; but

I claim as my invention—
The paper for bird-cages herein described, the sand or gravel being attached by a farinaceous paste, substantially as hereinbefore set forth.

JASPER H. SINGER.

Witnesses:
THOS. P. HOW,
L. W. HOW.