To all whom it may concern:

Be it known that I, Dr. Fritz Herold, a citizen of the German Republic, residing at 5 Am Heiligen Grabe, Goslar a. H., Germany, have invented new and useful Improvements in or Relating to Methods of Producing Stencil Sheets for Manifolding Purpose or the like, of which the following is a specification.

10 Stencil sheets for manifolding typed or hand writing, drawings or the like consist of a fibrous porous paper, preferably the so-called Japan paper, which receives a covering that is impermeable to ink or colour and can be penetrated by the type of the typewriter machine or type-wheels.

This covering has hitherto been made in the simplest manner of wax mixtures. The stencil sheet therewith obtained has however the great disadvantage of being very liable to crease or wrinkle and particularly sensitive to the action of heat. Further it possesses no great productiveness.

In view of this improvement, stencil sheets are obtained by employing certain protein substances, particularly gelatine, which have to be subsequently subjected to a hardening process with different hardening media. At the same time, for the purpose of making the conglutinated layer of gelatine plant, glycerine or similar softening substances soluble in water are added.

But these stencil sheets also have a great disadvantage as before the different sheets are used at any time they must be moistened, as without this treatment the type of the type-writer or the style will not penetrate. Through this moistening however the iron parts of the machine are very injuriously affected, apart from the fact that the method is very troublesome for the user.

By addition of soaps in place of the glycerine attempt has been made to dispense with the moistening but these stencil sheets are also produced with employment of hardened gelatine and after the hardening process, a further treatment is necessary.

By impregnating the said Japan paper with inorganic or organic cellulose esters, to which for the purpose of obtaining planey oils fats, fatty acids or the like substances must be added stencil sheets can be obtained. In consequence however of the employment of the suitable solvents their manufacture is expensive and also particularly dangerous.

In the present invention operations begin with a material not hitherto employed for this purpose, a solution of casein being emulsified with oils or fats of mineral, animal or vegetable nature and applied in a suitable manner to the Japan paper. After the evaporation of the solvent the manifolding paper is ready for use. The mixture may also be coloured with different inorganic or organic colouring substances for the purpose of making the appearance of the written sheet more striking.

A suitable solution, which serves for impregnating Japan paper is produced by the emulsification of 1 kilogramme of olive oil with a kilogramme of a 10% alkaline solution of casein. After 0.8 kilogrammes of permanent white (blanc-fixe or sulphate of barium) has been stirred in, the whole is increased with water to 3.5 kilogrammes.

The Japan paper is either immersed in the mixture or the mixture applied to the paper by means of brushes.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed I declare that what I claim is:

1. A method of producing stencil sheets for manifolding purpose or the like consisting in emulsifying a casein solution with oleaginous body and applying it to a fibrous, porous paper serving as carrier.

2. A method of producing stencil sheets for manifolding purpose or the like consisting in emulsifying a casein solution with oleaginous body and applying it to a Japan paper serving as carrier.

3. A method of producing stencil sheets for manifolding purpose or the like consisting in emulsifying an alkaline solution of casein with olive oil, stirring permanent
white in, increasing the whole with water and applying the mixture to a fibrous, porous paper.

5. A method of producing stencil sheets for manifolding purpose or the like consisting of emulsifying 1 kg. of a 10% alkaline solution of casein with 1 kg. olive oil, stirring 0.8 kg. permanent white in, increasing the whole with water to 3.5 kg. and applying the mixture to a fibrous, porous paper.

6. A stencil sheet for manifolding purpose or the like consisting of a fibrous, porous paper having applied to it a dried mixture of a casein solution with oleaginous body.

7. A stencil sheet for manifolding purpose or the like consisting of a fibrous, porous paper having applied to it a dried mixture of a casein solution with oleaginous body coloured with a colouring substance.

In testimony whereof I have signed my name to this specification.

Dr. FRITZ HEROLD.