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DESULFURIZATION ABSORPTION TOWER WITH VARIABLE FREQUENCY REGULATED SLURRY CIRCULATING PUMP.

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The present application discloses a desulfurization absorption tower with a variable frequency regulated slurry circulating pump, and relates to the field of wet desulfurization. The desulfurization absorption tower with a variable frequency regulated slurry circulating pump includes a desulfurization absorption tower. A base is fixed at the bottom of the desulfurization absorption tower. An air inlet pipe penetrating through one side of the desulfurization absorption tower is provided in the middle of the desulfurization absorption tower. A control box is arranged below the air inlet pipe. A variable-frequency drive is arranged in the control box. A cleaning component is provided according to the present application. When the motor operates to drive the screw rod to rotate, the dispersion net is driven to move along the thread, and because the scraping ring is in sliding fit with the sliding grooves through the sliding blocks, the dispersion net and the scraping ring can be adjusted vertically. The inner wall of the desulfurization absorption tower can be scraped along with the adjustment of the height of the scraping ring, so that dust and water stains adhered to the inner wall of the desulfurization absorption tower are scraped off, and the subsequent desulfurization of the desulfurization absorption tower is not affected. The situation that the dust mixed in the flue gas and the water droplets in slurry spray adhere to an inner wall of the desulfurization absorption tower to form dirt and affect the subsequent desulfurization effect is avoided.

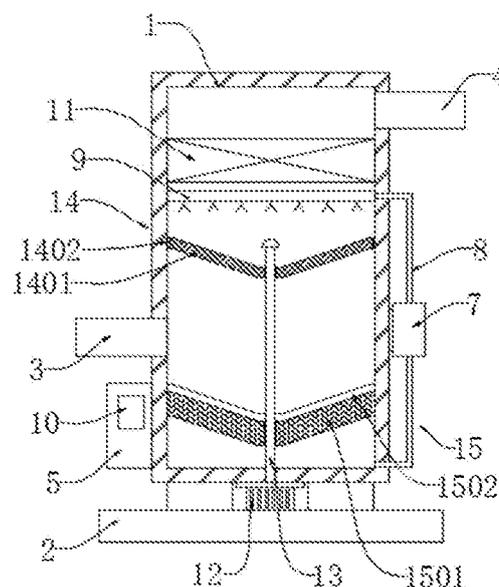


FIG. 2

**DESULFURIZATION ABSORPTION TOWER WITH VARIABLE FREQUENCY
REGULATED SLURRY CIRCULATING PUMP**

FIELD

5 [0001] The present application relates to the technical field of wet desulphurization, and in particular to a desulfurization absorption tower with a variable frequency regulated slurry circulating pump.

BACKGROUND

10 [0002] Wet desulfurization process is the most widely used flue gas desulfurization technology in coal-fired power plants in China. Flue gas desulfurization is currently the mainstream desulfurization process in China, where the slurry circulating pump is the main energy-consuming equipment, and slurry circulation volume is the main parameter affecting the desulfurization efficiency.

15 [0003] The Chinese patent No. CN213761257U disclosed a desulfurization absorption tower with a variable frequency regulated slurry circulating pump. According to the desulfurization absorption tower disclosed therein, when the unit load or SO₂ concentration at the inlet decreases, the control system adjusts the rotating speed of the slurry circulating pump to change the circulation volume of slurry and the thickness of the liquid-holding layer of the
20 liquid-holding enhanced mass transfer device, thereby reducing the power consumption of the circulating pump and the resistance of the absorption tower. However, in the process of using the desulfurization absorption tower, the dust mixed in the flue gas and the water droplets in slurry spray easily adhere to an inner wall of the desulfurization absorption tower. The dirt on the inner wall accumulates and thickens as time goes by, further affecting the subsequent
25 desulfurization effect.

SUMMARY

[0004] Based on this, an object of the present application is to provide a desulfurization absorption tower with a variable frequency regulated slurry circulating pump, so as to solve
30 the technical problems that the dust mixed in the flue gas and the water droplets in slurry

spray adhere to an inner wall of the desulfurization absorption tower to form dirt and affect the subsequent desulfurization effect.

[0005] In order to achieve the above object, the following technical solutions are provided according to the present application. A desulfurization absorption tower with a variable frequency regulated slurry circulating pump, includes a desulfurization absorption tower. A base is fixed at the bottom of the desulfurization absorption tower. An air inlet pipe penetrating through one side of the desulfurization absorption tower is provided in the middle of the desulfurization absorption tower. A control box is arranged below the air inlet pipe. A variable-frequency drive is arranged in the control box. An air outlet pipe penetrating through the other side of the desulfurization absorption tower is provided at an upper part of the desulfurization absorption tower. A sealing door is arranged in the middle of the outer surface of the desulfurization absorption tower. A motor is arranged in the middle of the bottom of the desulfurization absorption tower. An output end of the motor is connected with a screw rod. A cleaning component is arranged above an outer surface of the screw rod, and a liquid guiding component is arranged below the outer surface of the screw rod.

[0006] Further, a slurry circulating pump is arranged below the air outlet pipe. A liquid inlet end and a liquid outlet end of the slurry circulating pump are both connected with liquid conveying pipes. One end of one of the liquid conveying pipes far away from the liquid outlet end of the slurry circulating pump is connected with a spray plate. A mist eliminator is mounted above the spray plate.

[0007] By adopting the above technical solution, the operation of the slurry circulating pump can transport the slurry located at an inner lower part of the desulfurization absorption tower to the spray plate through the liquid conveying pipe for spraying and thereby desulfurizing the flue gas; meanwhile, the mist eliminator can dehumidify the flue gas and remove water mist.

[0008] Further, the control box is electrically connected with the slurry circulating pump through the variable-frequency drive, and the slurry circulating pump is provided with a frequency varying structure.

[0009] By adopting the above technical solution, the control box can perform variable frequency control for the slurry circulating pump with the variable-frequency drive, achieving the object of variable frequency regulation.

[0010] Further, the cleaning component includes a dispersion net sleeved at an upper part of the outer surface of the screw rod, where a scraping ring is fixed along the circumference of the top of the dispersion net, and multiple sliding blocks are fixed along the circumference of the scraping ring.

5 **[0011]** By adopting the above technical solution, when the motor operates to drive the screw rod to rotate, the dispersion net is driven to move along the thread, and because the scraping ring is in sliding fit with the sliding grooves through the sliding blocks, the dispersion net and the scraping ring can be adjusted vertically. The inner wall of the desulfurization absorption tower can be scraped along with the adjustment of the height of the scraping ring, so that dust
10 and water stains adhered to the inner wall of the desulfurization absorption tower are scraped off, and the subsequent desulfurization of the desulfurization absorption tower is not affected.

[0012] Further, multiple sliding grooves fitting the sliding blocks are arranged on the inner wall of the desulfurization absorption tower, and the scraping ring is in sliding fit with the sliding grooves through the sliding blocks.

15 **[0013]** By adopting the above technical solution, the scraping ring slides along the sliding grooves via the sliding blocks.

[0014] Further, the circumference of the scraping ring abuts against the inner wall of the desulfurization absorption tower, and the inner middle of the dispersion net is threaded to the screw rod.

20 **[0015]** By adopting the above technical solution, dust and water stains adhered to the inner wall of the desulfurization absorption tower can be scraped off by adjusting the height of the scraping ring.

[0016] Further, the liquid guiding component includes a permeable cotton plate sleeved at a lower part of the outer surface of the screw rod; scraping rods fixed at a lower part of the screw rod are arranged on two sides of the screw rod and are arranged above the permeable
25 cotton plate.

[0017] By adopting the above technical solution, after desulfurization of the flue gas by slurry spray, the slurry is filtered by the permeable cotton plate, so that impurities are left on the permeable cotton plate, and the slurry is stored in the inner lower part of the
30 desulfurization absorption tower for subsequent use. The scraping rods are driven to rotate

along with the rotation of the screw rod, so that the top of the permeable cotton plate is scraped by the bottom of the scraping rods, and the permeable cotton plate is not easily blocked to affect the subsequent filtration. Besides, as the dispersion net and the scraping ring move downwards, the top of the scraping rods further scrapes the bottom of the dispersion net, thereby removing the slurry on the dispersion net and facilitating the backflow and collection of the slurry.

[0018] Further, the bottom of the scraping rods abuts against the top of the permeable cotton plate, and the top of the scraping rods is matched with the bottom of the dispersion net.

[0019] By adopting the above technical solution, the scraping rods can scrape the top of the permeable cotton plate and the bottom of the dispersion net.

[0020] In summary, the present application mainly has the following beneficial effects.

[0021] 1. A cleaning component is provided according to the present application. When the motor operates to drive the screw rod to rotate, the dispersion net is driven to move along the thread, and because the scraping ring is in sliding fit with the sliding grooves through the sliding blocks, the dispersion net and the scraping ring can be adjusted vertically. The inner wall of the desulfurization absorption tower can be scraped along with the adjustment of the height of the scraping ring, so that dust and water stains adhered to the inner wall of the desulfurization absorption tower are scraped off, and the subsequent desulfurization of the desulfurization absorption tower is not affected. The situation that the dust mixed in the flue gas and the water droplets in slurry spray adhere to an inner wall of the desulfurization absorption tower to form dirt and affect the subsequent desulfurization effect, is avoided.

[0022] 2. A liquid guiding component is provided according to the present application. After desulfurization of the flue gas by slurry spray, the slurry is filtered by the permeable cotton plate, so that impurities are left on the permeable cotton plate, and the slurry is stored in the inner lower part of the desulfurization absorption tower for subsequent use. The scraping rods are driven to rotate along with the rotation of the screw rod, so that the top of the permeable cotton plate is scraped by the bottom of the scraping rods, and the permeable cotton plate is not easily blocked to affect the subsequent filtration. Besides, as the dispersion net and the scraping ring move downwards, the top of the scraping rods further scrapes the bottom of the dispersion net, thereby removing the slurry on the dispersion net and facilitating the backflow and collection of the slurry. The desulfurization absorption tower is safer to use.

BRIEF DESCRIPTION OF THE DRAWINGS

[0023] FIG. 1 is a schematic structural diagram of a desulfurization absorption tower of the present application;

5 [0024] FIG. 2 is a schematic structural diagram of a scraping ring, in an initial state, of the present application;

[0025] FIG. 3 is a schematic structural diagram of the scraping ring, in an adjusting state, of the present application;

[0026] FIG. 4 is a top, sectioned view of the desulfurization absorption tower of the present
10 application; and

[0027] FIG. 5 is a perspective view of a cleaning component of the present application.

[0028] Reference numerals in the drawings are listed as follows: 1 desulfurization absorption tower; 2 base; 3 air inlet pipe; 4 air outlet pipe; 5 control box; 6 sealing door; 7 slurry circulating pump; 8 liquid conveying pipe; 9 spray plate; 10 variable-frequency drive;
15 11 mist eliminator; 12 motor; 13 screw rod; 14 cleaning component; 1401 dispersion net; 1402 scraping ring; 1403 sliding block; 15 liquid guiding component; 1501 permeable cotton plate; 1502 scraping rod.

DETAILED DESCRIPTION OF THE EMBODIMENTS

20 [0029] Technical solutions in the embodiments of the present application are clearly and completely described hereinafter in conjunction with the drawings in the embodiments of the present application. The embodiments described below with reference to the drawings are only exemplary embodiments which are only used to explain the present application, and should not be construed as limiting the present application.

25 [0030] The embodiment of the present application is described below according to the overall structure of the present application.

[0031] As shown in FIG. 1 to FIG. 5, a desulfurization absorption tower with a variable frequency regulated slurry circulating pump, includes a desulfurization absorption tower 1. A base 2 is fixed at the bottom of the desulfurization absorption tower 1. An air inlet pipe 3

penetrating through one side of the desulfurization absorption tower 1 is provided in the middle of the desulfurization absorption tower. A control box 5 is arranged below the air inlet pipe 3. A variable-frequency drive 10 is arranged in the control box 5. An air outlet pipe 4 penetrating through the other side of the desulfurization absorption tower 1 is provided at an upper part of the desulfurization absorption tower. A slurry circulating pump 7 is arranged below the air outlet pipe 4. The control box 5 is electrically connected with the slurry circulating pump 7 through the variable-frequency drive 10, and the slurry circulating pump 7 is provided with a frequency varying structure, so that the control box 5 can perform variable frequency control for the slurry circulating pump 7 with the variable-frequency drive 10, achieving the object of variable frequency regulation. A liquid inlet end and a liquid outlet end of the slurry circulating pump 7 are both connected with liquid conveying pipes 8. One end of one of the liquid conveying pipes 8 far away from the liquid outlet end of the slurry circulating pump 7 is connected with a spray plate 9. A mist eliminator 11 is mounted above the spray plate 9. The operation of the slurry circulating pump 7 can transport the slurry located at an inner lower part of the desulfurization absorption tower 1 to the spray plate 9 through the liquid conveying pipe 8 for spraying and thereby desulfurizing the flue gas. Meanwhile, the mist eliminator 11 can dehumidify the flue gas and remove water mist. A sealing door 6 is arranged in the middle of the outer surface of the desulfurization absorption tower 1. A motor 12 is arranged in the middle of the bottom of the desulfurization absorption tower 1. An output end of the motor 12 is connected with a screw rod 13. A cleaning component 14 is arranged above an outer surface of the screw rod 13, and a liquid guiding component 15 is arranged below the outer surface of the screw rod 13. The cleaning component 14 includes a dispersion net 1401 sleeved at an upper part of the outer surface of the screw rod 13, where a scraping ring 1402 is fixed along the circumference of the top of the dispersion net 1401, and multiple sliding blocks 1403 are fixed along the circumference of the scraping ring 1402. The liquid guiding component 15 includes a permeable cotton plate 1501 sleeved at a lower part of the outer surface of the screw rod 13. Scraping rods 1502 fixed at a lower part of the screw rod 13 are arranged on two sides of the screw rod 13 and are arranged above the permeable cotton plate 1501.

[0032] Referring to FIG. 1 to FIG. 5, the cleaning component 14 includes the dispersion net 1401 sleeved at the upper part of the outer surface of the screw rod 13. The scraping ring 1402 is fixed along the circumference of the top of the dispersion net 1401. The circumference of

the scraping ring 1402 abuts against the inner wall of the desulfurization absorption tower 1, and the inner middle of the dispersion net 1401 is threaded to the screw rod 13, so that dust and water stains adhered to the inner wall of the desulfurization absorption tower 1 can be scraped off by adjusting the height of the scraping ring 1402. Multiple sliding blocks 1403 are fixed along the circumference of the scraping ring 1402. Multiple sliding grooves fitting the sliding blocks 1403 are arranged on the inner wall of the desulfurization absorption tower 1. The scraping ring 1402 is in sliding fit with the sliding grooves through the sliding blocks 1403, so that the scraping ring 1402 slides along the sliding grooves via the sliding blocks 1403. When the motor 12 operates to drive the screw rod 13 to rotate, the dispersion net 1401 is driven to move along the thread, and because the scraping ring 1402 is in sliding fit with the sliding grooves through the sliding blocks 1403, the dispersion net 1401 and the scraping ring 1402 can be adjusted vertically. The inner wall of the desulfurization absorption tower 1 can be scraped along with the adjustment of the height of the scraping ring 1402, so that dust and water stains adhered to the inner wall of the desulfurization absorption tower 1 are scraped off, and the subsequent desulfurization of the desulfurization absorption tower 1 is not affected.

[0033] Referring to FIG. 1 to FIG. 5, the liquid guiding component 15 includes the permeable cotton plate 1501 sleeved at the lower part of the outer surface of the screw rod 13. Scraping rods 1502 fixed at the lower part of the screw rod 13 are arranged on two sides of the screw rod 13 and are arranged above the permeable cotton plate 1501. The bottom of the scraping rods 1502 abuts against the top of the permeable cotton plate 1501, and the top of the scraping rods 1502 is matched with the bottom of the dispersion net 1401, so that the scraping rods 1502 can scrape the top of the permeable cotton plate 1501 and the bottom of the dispersion net 1401. After desulfurization of the flue gas by slurry spray, the slurry is filtered by the permeable cotton plate 1501, so that impurities are left on the permeable cotton plate 1501, and the slurry is stored in the inner lower part of the desulfurization absorption tower 1 for subsequent use. The scraping rods 1502 are driven to rotate along with the rotation of the screw rod 13, so that the top of the permeable cotton plate 1501 is scraped by the bottom of the scraping rods 1502, and the permeable cotton plate 1501 is not easily blocked to affect the subsequent filtration. Besides, as the dispersion net 1401 and the scraping ring 1402 move downwards, the top of the scraping rods 1502 further scrapes the bottom of the dispersion net 1401, thereby removing the slurry on the dispersion net 1401 and facilitating the backflow

and collection of the slurry.

[0034] The implementation principle of this embodiment is as follows. Firstly, after the flue gas flows in through the air inlet pipe 3, the operator operates the slurry circulating pump 7 to transport the slurry located at the inner lower part of the desulfurization absorption tower 1 to the spray plate 9 through the liquid conveying pipe 8 for spraying and thereby desulfurizing the flue gas. Meanwhile, the mist eliminator 11 can dehumidify the flue gas and remove water mist. After desulfurization of the flue gas by slurry spray, the slurry is filtered by the permeable cotton plate 1501, so that impurities are left on the permeable cotton plate 1501, and the slurry is stored in the inner lower part of the desulfurization absorption tower 1 for subsequent use. Meanwhile, the operator operates the motor 12 to drive the screw rod 13 to rotate, the dispersion net 1401 is driven to move along the thread, and because the scraping ring 1402 is in sliding fit with the sliding grooves through the sliding blocks 1403, the dispersion net 1401 and the scraping ring 1402 can be adjusted vertically. The inner wall of the desulfurization absorption tower 1 can be scraped along with the adjustment of the height of the scraping ring 1402, so that dust and water stains adhered to the inner wall of the desulfurization absorption tower 1 are scraped off. The scraping rods 1502 are driven to rotate along with the rotation of the screw rod 13, so that the top of the permeable cotton plate 1501 is scraped by the bottom of the scraping rods 1502, and the permeable cotton plate 1501 is not easily blocked to affect the subsequent filtration. Besides, as the dispersion net 1401 and the scraping ring 1402 move downwards, the top of the scraping rods 1502 further scrapes the bottom of the dispersion net 1401, thereby removing the slurry on the dispersion net 1401 and facilitating the backflow and collection of the slurry.

[0035] Although the embodiment of the present application has been shown and described, this specific embodiment is only used for explaining the present application and is not intended to limit the present application. Specific features, structures, materials or characteristics described herein may be combined in any one or more embodiments or examples in a suitable manner. After reading this specification, those skilled in the art can make, as needed, changes, substitutions and modifications to the embodiments with no inventive contributions, without departing from the principle and object of the present application. As long as those modifications, substitutions and variations fall within the scope of the appended claims of the present application, they shall be protected by the patent law.

CLAIMS

1. A desulfurization absorption tower with a variable frequency regulated slurry circulating pump, comprising a desulfurization absorption tower (1), wherein a base (2) is fixed at the bottom of the desulfurization absorption tower (1); an air inlet pipe (3) penetrating through one side of the desulfurization absorption tower (1) is provided in the middle of the desulfurization absorption tower (1); a control box (5) is arranged below the air inlet pipe (3); a variable-frequency drive (10) is arranged in the control box (5); an air outlet pipe (4) penetrating through the other side of the desulfurization absorption tower (1) is provided at an upper part of the desulfurization absorption tower (1); a sealing door (6) is arranged in the middle of the outer surface of the desulfurization absorption tower (1); a motor (12) is arranged in the middle of the bottom of the desulfurization absorption tower (1); an output end of the motor (12) is connected with a screw rod (13); a cleaning component (14) is arranged above an outer surface of the screw rod (13), and a liquid guiding component (15) is arranged below the outer surface of the screw rod (13).

2. The desulfurization absorption tower with a variable frequency regulated slurry circulating pump according to claim 1, wherein a slurry circulating pump (7) is arranged below the air outlet pipe (4); a liquid inlet end and a liquid outlet end of the slurry circulating pump (7) are both connected with liquid conveying pipes (8); one end of one of the liquid conveying pipes (8) far away from the liquid outlet end of the slurry circulating pump (7) is connected with a spray plate (9); a mist eliminator (11) is mounted above the spray plate (9).

3. The desulfurization absorption tower with a variable frequency regulated slurry circulating pump according to claim 2, wherein the control box (5) is electrically connected with the slurry circulating pump (7) through the variable-frequency drive (10), and the slurry circulating pump (7) is provided with a frequency varying structure.

4. The desulfurization absorption tower with a variable frequency regulated slurry circulating pump according to claim 1, wherein the cleaning component (14) comprises a

dispersion net (1401) sleeved at an upper part of the outer surface of the screw rod (13), wherein a scraping ring (1402) is fixed along the circumference of the top of the dispersion net (1401), and a plurality of sliding blocks (1403) are fixed along the circumference of the scraping ring (1402).

5

5. The desulfurization absorption tower with a variable frequency regulated slurry circulating pump according to claim 4, wherein a plurality of sliding grooves fitting the sliding blocks (1403) are arranged on an inner wall of the desulfurization absorption tower (1), and the scraping ring (1402) is in sliding fit with the sliding grooves through the sliding
10 blocks (1403).

6. The desulfurization absorption tower with a variable frequency regulated slurry circulating pump according to claim 4, wherein the circumference of the scraping ring (1402) abuts against an inner wall of the desulfurization absorption tower (1), and the inner middle of
15 the dispersion net (1401) is threaded to the screw rod (13).

7. The desulfurization absorption tower with a variable frequency regulated slurry circulating pump according to claim 4, wherein the liquid guiding component (15) comprises a permeable cotton plate (1501) sleeved at a lower part of the outer surface of the screw rod
20 (13); scraping rods (1502) fixed at a lower part of the screw rod (13) are arranged on two sides of the screw rod (13) and are arranged above the permeable cotton plate (1501).

8. The desulfurization absorption tower with a variable frequency regulated slurry circulating pump according to claim 7, wherein the bottom of the scraping rods (1502) abuts
25 against the top of the permeable cotton plate (1501), and the top of the scraping rods (1502) is matched with the bottom of the dispersion net (1401).

Ansprüche

1. Entschwefelungsabsorptionsturm mit Frequenzwechselrichtregelung einer Aufschlammungsumwälzpumpe, umfassend einen Entschwefelungsabsorptionsturm (1),
5 dadurch gekennzeichnet, dass auf der Unterseite des Entschwefelungsabsorptionsturms (1) ein Untergrund (2) fixiert ist, die Mitte einer Seite des Entschwefelungsabsorptionsturms (1) von einem Lufteinlassrohr (3) durchdrungen ist, unterhalb dessen ein Steuerkasten (5) montiert ist, innerhalb dessen ein Frequenzwechselrichter (10) montiert ist, das Oberteil der anderen Seite des
10 Entschwefelungsabsorptionsturms (1) von einem Luftauslassrohr (4) durchdrungen ist, in der Mitte der äußeren Oberfläche des Entschwefelungsabsorptionsturms (1) ein Beobachtungsfenster (6) montiert ist, in der Mitte der Unterseite des Entschwefelungsabsorptionsturms (1) eine Elektromaschine (12) montiert ist, an deren Ausgangsende eine Spindel (13) angeschlossen ist, an dem Oberteil und Unterteil der äußeren Oberfläche der Spindel (13) jeweils eine Schmutzreinigungsbaugruppe (14) und
15 eine Fluidführungsbaugruppe (15) angeordnet sind.
2. Entschwefelungsabsorptionsturm mit Frequenzwechselrichtregelung einer Aufschlammungsumwälzpumpe nach Anspruch 1, dadurch gekennzeichnet, dass
20 unterhalb des Luftauslassrohrs (4) eine Aufschlammungsumwälzpumpe (7) montiert ist, an deren Fluideinlassende und deren Fluidauslassende jeweils ein Fluidzufuhrrohr (8) angeschlossen ist, an ein von dem Fluidauslassende der Aufschlammungsumwälzpumpe (7) entfernten Ende des Fluidzufuhrrohrs (8) eine Sprühscheibe (9) angeschlossen ist, oberhalb deren ein Tropfenabscheider (11) montiert ist.
25
3. Entschwefelungsabsorptionsturm mit Frequenzwechselrichtregelung einer Aufschlammungsumwälzpumpe nach Anspruch 2, dadurch gekennzeichnet, dass der Steuerkasten (5) durch den Frequenzwechselrichter (10) elektrisch mit der Aufschlammungsumwälzpumpe (7) verbunden ist, die eine
30 Aufschlammungsumwälzpumpe mit einer Frequenzwechselrichtstruktur ist.
4. Entschwefelungsabsorptionsturm mit Frequenzwechselrichtregelung einer Aufschlammungsumwälzpumpe nach Anspruch 1, dadurch gekennzeichnet, dass die Schmutzreinigungsbaugruppe (14) ein hülsenartig an das Oberteil der äußeren
35 Oberfläche der Spindel (13) angeschlossenenes Dispersionsnetz (1401) umfasst, an dessen

oberen Ende allseitig ein Abstreifring (1402) fixiert ist, an dem allseitig mehrere Schieber (1403) fixiert sind.

- 5 5. Entschwefelungsabsorptionsturm mit Frequenzwechselrichtregelung einer Aufschlammungsumwälzpumpe nach Anspruch 4, dadurch gekennzeichnet, dass auf der Innenwand des Entschwefelungsabsorptionsturms (1) mehrere an die Schieber (1403) angepassten Kulissen angeordnet sind, der Abstreifring (1402) durch die Schieber (1403) mit den Kulissen in Schiebesitz steht.
- 10 6. Entschwefelungsabsorptionsturm mit Frequenzwechselrichtregelung einer Aufschlammungsumwälzpumpe nach Anspruch 4, dadurch gekennzeichnet, dass der Umfang des Abschleifrings (1402) an der Innenwand des Entschwefelungsabsorptionsturms (1) anliegt, die innere Mitte des Dispersionsnetzes (1401) mit der Spindel (13) über ein Gewinde verbunden ist.
- 15 7. Entschwefelungsabsorptionsturm mit Frequenzwechselrichtregelung einer Aufschlammungsumwälzpumpe nach Anspruch 4, dadurch gekennzeichnet, dass die Fluidführungsbaugruppe (15) eine hülsenartig an das Unterteil der äußeren Oberfläche der Spindel (13) angeschlossene durchlässige Baumwollplatte (1501) umfasst, oberhalb
20 deren eine an dem Unterteil der beiden Seiten der Spindel (13) fixierte Abstreifstange (1502) angeordnet ist.
- 25 8. Entschwefelungsabsorptionsturm mit Frequenzwechselrichtregelung einer Aufschlammungsumwälzpumpe nach Anspruch 7, dadurch gekennzeichnet, dass die Unterseite der Abstreifstange (1502) an der Oberseite der durchlässigen Baumwollplatte (1501) anliegt, die Oberseite der Abstreifstange (1502) an die Unterseite des Dispersionsnetzes (1401) angepasst ist.

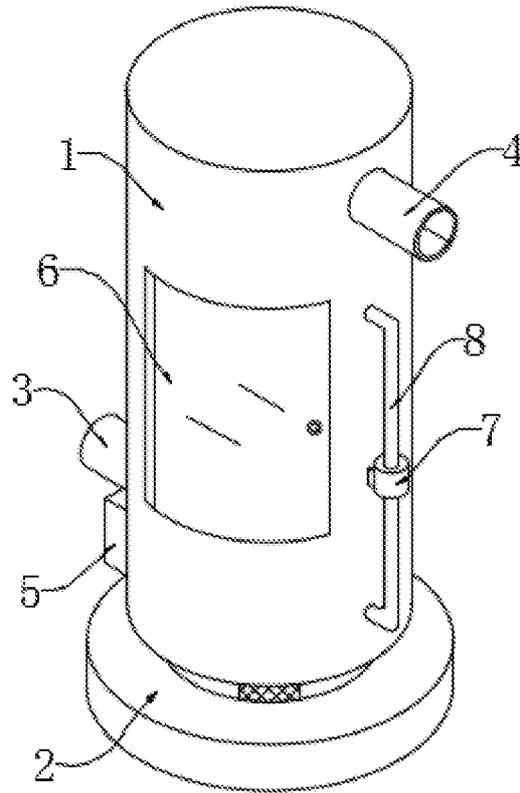


FIG. 1

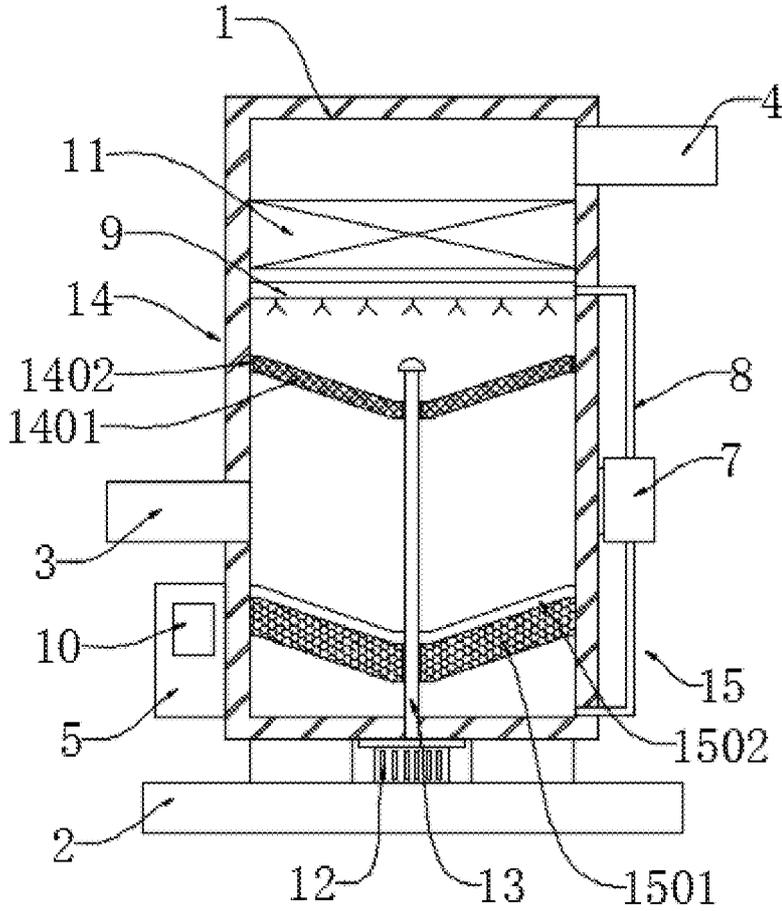


FIG. 2

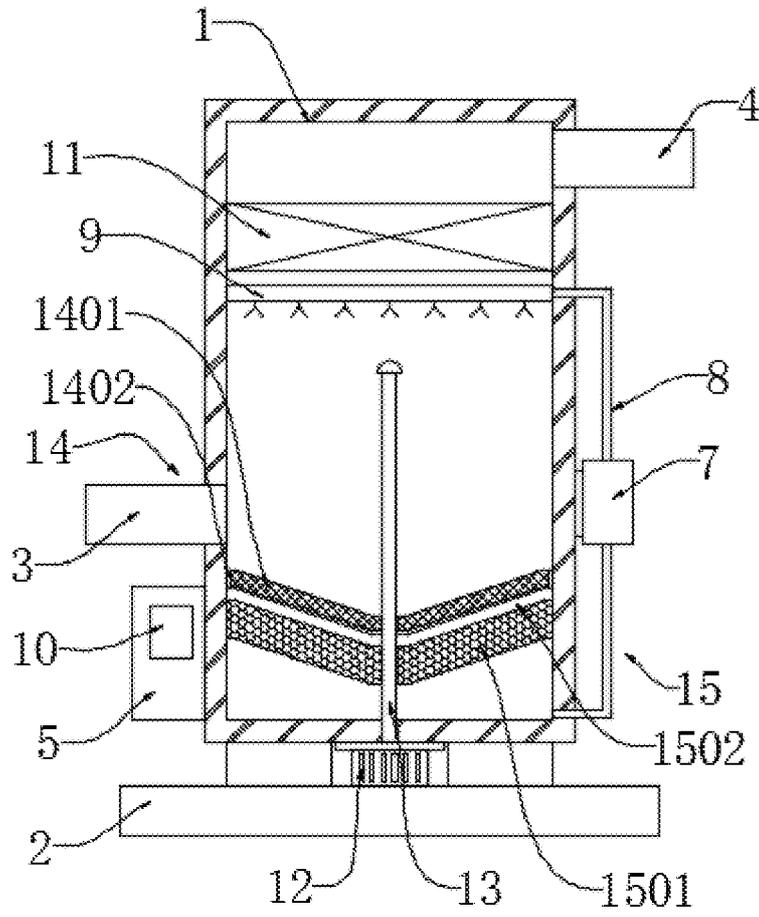


FIG. 3

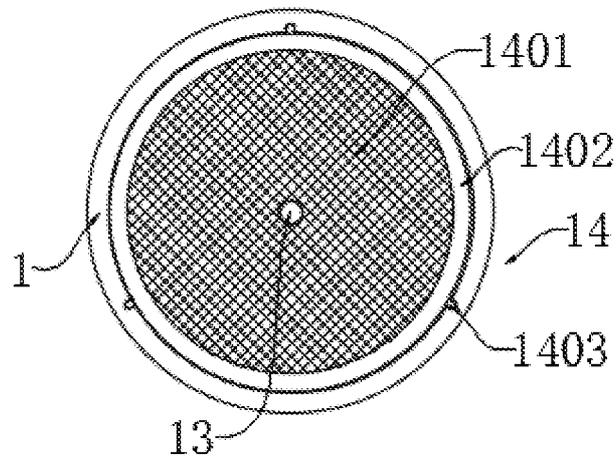


FIG. 4

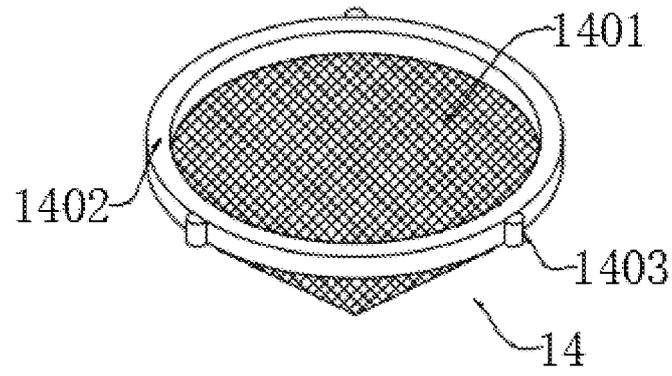


FIG. 5