exposed. The case, therefore, fell into the category of subdural abscess. The usual dressing with sterilized gauze was applied. The dressing was left for five days. There was much pus lying free in the operative opening. Dry swabbing was carried out, and syringing carefully avoided. Slight pains persisted for three weeks, chiefly in the occipital region. The perforation in the drum membrane healed up completely in ten days and the suppuration came to an end, the hearing power increasing to four-sixtieths. There was, therefore, a subdural abscess.

2. The patient complained, in the beginning of December, 1894, of pains in and behind the right ear, which persisted off and on until he presented himself for treatment, on the 18th of June, at the policlinic. He was very much emaciated, the meatus was swollen, the tympanic membrane opaque and presenting the normal inclination. The mastoid was extremely tender, was infiltrated and œdematous; on catheterization there were coarse crepitations. According to the patient's statement, there had been no discharge from the ear. The diagnosis of empyema of the mastoid was made, and the operation was carried out two days later. Before the operation paracentesis and catheterization was practised; much thin pus was expelled. The mastoid was opened in the usual way. After the removal of a thin layer of bone, thick pus was reached, and the mastoid was found to be full of granulations and completely carious. Before the operation the temperature was 39·8 C. Six days later the dressing was changed; there had been no fever, the pains had ceased at once, and had not returned. Syringing was carefully avoided. Complete cicatrization took place in six weeks.

The hearing in the second case increased to thirty-sixtieths, which, before the operation, had been *nil*. Even at the first dressing there was no pus found in the ear, and the membrane had healed up.

Dundas Grant (*Trans.*).

AUSTRIAN OTOLOGICAL SOCIETY.

Meeting, June 25th, 1895. ("Monatschrift für Ohrenheilkunde.")

Prof. GRUBER *in the Chair.*

Dr. BING. *A Case of Cured Suppuration of the Middle Ear.*

This was a female patient with chronic suppurative inflammation of the left middle ear, with a polypus filling the external meatus and growing from the attic. At the present moment the otorrhœa and inflammation have completely subsided, and there remains of the membrane only the antero-superior quadrant, which is thickened and somewhat calcified, as well as the thickened manubrium, from which a band of connective tissue extends to the exposed head of the stapes. Posteriorly was seen the tendon of the stapedius muscle, and above also the projection of the Fallopian canal, which was covered with a grey shining membrane. In

https://doi.org/10.1017/S1755146300163632 Published online by Cambridge University Press

the same way the promontory, which was spotted with small ecchymoses, and the margins of the niche for the round window, were visible, a thin, transparent cicatrix extending to this latter from the inferior peripheral remains of the tympanic membrane. Whispered speech could be heard at the distance of two mètres.

Dr. BING showed the case, not only on account of the interesting appearances, but also to illustrate the possibility of bringing about a cure in cases of well-established inflammation in the attic by so-called conservative treatment, even without the removal of the malleus, as the case has remained for a year and a half without recurrence. It remains to be seen whether this condition will persist; but it must be recognized that the removal of the ossicles does not afford an absolute guarantee of or freedom from recurrence.

He looked upon the removal of the ossicles in such cases as a proceeding which rendered the circumstances more favourable for further treatment, and as one which, in the absence of the limb of the incus, produced no injurious effect upon the hearing power. In illustration of this he showed a second case, in which extraction of the malleus was indicated. This was one of chronic suppuration of the middle ear, on the right side, in a woman of about forty years of age, who for a long time had been under treatment without benefit, and in whom, along with a perforation in the membrane of Shrapnel, there was a slit-like aperture behind the handle of the malleus, and in the depth of which a quantity of thick pus was shut in, which could only be removed by means of a probe. The peculiar, rare, slit-like form of this perforation he took to indicate that, at an earlier stage, there had been an extensive loss of substance, on the margins of which cicatrization had taken place, uniting them with the inner wall of the tympanum, so that only the free handle of the malleus bounded the slit in front.

Dr. MAX. *Examination of Growths removed from two Cases under Prof. Urbantschitsch.*

1. *The bony growth removed from the meatus* was found to have no connection with the mastoid processes beyond fibrous adhesion, but on the other hand it was developed in connection with the cartilaginous meatus. After incision of the skin over the mastoid process, parallel to the insertion of the auricle, and forward dissection of the integuments, the tumour presented as a free movable structure, which, after its fibrous connection with the anterior aspect of the mastoid was broken down, was found to be firmly connected with the posterior and inferior cartilaginous meatus. After section of the meatus in its circumference behind and above as far as the anterior wall, the tumour could be detached. This reached as far as the drum membrane, which it pressed deeply into the tympanum, and was found to be of irregular surface, with two prominent parts, of which one projected from the meatus and the other was close to the membrana tympani; its long diameter attained three centimètres, the vertical 2·5; it was as hard as bone. Behind the tumour there was a large collection of cheesy matter. After the removal of the tumour there was seen in the back part of the meatus a large cavity, whose floor,

https://doi.org/10.1017/S1755146300163632 Published online by Cambridge University Press

eight days later, when the swelling went down, could be distinguished as the membrana tympani, with remains of the manubrium, which was distinctly to be recognized. The posterior wound healed by first intention. The hearing, which previously was two paces for moderate speech and contact for the watch, was, after the operation, fifteen paces for whisper and fifteen centimètres for a watch normally heard at one hundred and twenty.

2. *Tumour situated at the posterior extremity of the helix* in a man, which on account of its variation in size was taken to be a fibro-angioma, and turned out to be a bluish-red structure about the size of a small hazel nut, enclosed in a firm capsule and completely circumscribed. It was removed *in toto*. The turgescence which occurred from time to time did not arise in the tumour itself, but in the extremely vascular cutis which covered it. On microscopical examination it was found to be a fibro-lymphangioma.

Dr. GOMPERTZ. *A Method of Preventing Renewed Adhesion of the Manubrium to the Promontory after Separation.*

History of case. On both sides were the residues of chronic suppuration of the middle ear. On the right side there was perforation and calcification, and the watch was heard on contact only. On the left side the whole membrane had gone, with the exception of a small area in the upper part containing the handle of the malleus. Above and behind, the union between the incus and the stapes could be seen to be intact. The umbo was attached to the promontory by firm cicatricial tissue. The mucous membrane was pale and dry. The watch was heard at three centimètres, a whisper at sixty. Catheterism and rarefaction of the air in the meatus produced no improvement on either side. Rinne was negative in both. After the severance of the adhesion, a small plate of white celluloid, two millimètres in thickness, and carefully sterilized, was introduced between the extremity of the manubrium and the inner wall of the tympanum. This was a strip of celluloid paper, three and a half centimètres in length, one millimètre wide at the ends, and four in the middle. This strip of celluloid was held with the forceps, pushed into the meatus, and so placed that the middle broadest part came to be between the manubrium and the promontory, while the two ends springing open adapted themselves to the anterior and posterior wall of the meatus. They caused no inconvenience and gave rise to no secretion, and were left in position for fourteen days, after which time the wounded surface had completely healed over. Two months later it could be seen that the handle of the malleus lay quite free. The hearing power, immediately after the operation, increased from sixty centimètres to four mètres, and, when last tested, whispering speech was heard at from three to four mètres.

Prof. GRUBER considered the duration of the observation too short to exclude the possibility of re-establishment of the adhesion.

Prof. POLITZER thought the operation should only be performed when the chain of bones was intact, as in case of a defect in the long process of the incus no good result could be expected.

https://doi.org/10.1017/S1755146300163632 Published online by Cambridge University Press

Dr. BING thought that in such a case tenotomy of the tensor tympani might well be performed, still further tending to prevent readhesion.

Dr. GOMPERTZ replied to Prof. Gruber that the diseased process had come to an end, as the otorrhœa had long ceased, and that it was hardly possible for readhesion to take place when the surfaces were covered with epithelium; and to Dr. Bing he pointed out the circumstance that the other ear was the worse one, which was a reason for his not performing tenotomy, an operation of which the most that can be said is that in the most favourable cases it only does no harm. He did not think it advisable to risk the remains of hearing power by a procedure of doubtful advantage, holding to the principle *primum non nocere.*

Prof. POLITZER. *Bilateral Congenital Malformation of the Ears in a Child.*

The drawing showed in the left auricle the frequently observed appearance of an S-shaped swelling, in the upper part of which there was the rudiment of cartilage, and a small blind depression which represented the outer opening of the cartilaginous meatus, which felt like a solid cord. In the upper part of the right auricle there was almost the same malformation as in the left, but the lower larger half consisted of a loose pendulous lobule, on the lateral surface of which there was an auricular appendage about the size of a small pea. The portions of the temporal bone corresponding to the seat of attachment were flattened, and the soft palate during crying underwent very slight movement.

Prof. Politzer considered, therefore, that the malformation of the auricle and the atresia of the meatus were combined in this case with a rudimentary development of the middle ear, but that the labyrinth was normal, inasmuch as the child was affected by noises. He drew attention to the symptom of diminished mobility of the palate, which he was the first to point out, and which indicated with certainty that the deformity affected not only the external ear, but simultaneously the tympanum and the Eustachian tube.

Prof. POLITZER. *Two Pathological Preparations showing Cholesteatoma Formation in the Temporal Bone.*

The first was from a deaf woman, aged eighty. There was an extensive defect in the upper wall of the osseous meatus, which led into the cicatrized tympanic cavity, and into a large dilatation of the mastoid antrum. In this cavity there was a stratified cholesteatoma the size of a small nut, pearly and shining, which could be lifted out complete. Of the membrana tympani only the antero-superior quadrant remained, and this at its posterior part adhered to the inner wall of the tympanum. The tympanic orifice of the Eustachian tube was closed by a cicatrix.

The second preparation was from a woman, aged fifty-six, who was deaf in the left ear owing to a former chronic suppuration. The anterior half of the membrane is preserved, but was much thickened; the postero-superior part has quite disappeared, and the perforation was increased in size owing to a defect in the postero-superior wall of the meatus. Through this hole the epidermis had grown into the tympanic cavity, and the whole upper space of the tympanum as well as the mastoid antrum was filled with a cholesteatoma covered with an iridescent pellicle.

https://doi.org/10.1017/S1755146300163632 Published online by Cambridge University Press

Meeting, October 29th, 1895.

President—Prof. GRUBER.

Prof. POLITZER. *A Successful Case of Mastoid Operation by Körner's Method.*

The patient, a girl, aged nineteen, had suffered from right chronic suppuration in spite of treatment for three years. Troublesome symptoms appeared—headache, vertigo, pains in and behind the ear—which did not yield. On the 9th of May, 1895, the mastoid operation, in conjunction with Körner's plastic method, was performed.

The postero-superior wall of the osseous meatus and the outer wall of the attic were removed. The postero-superior membranous part of the cartilaginous meatus was divided by two parallel incisions reaching to the concha, forming a flap, which after replacement of the auricle were pushed into the cavity in the bone, and kept there by means of a tampon. The subsequent course was normal. In the beginning of October suppuration ceased.

The present condition, five months after the operation, shows the mucous membrane of the promontory and of the attic to be dry and smooth, the hearing distance for whispered voice three mètres, and for acoumeter fifteen centimètres.

It had not been found necessary to extend the flap so far into the cartilage of the auricle as Körner recommended, and one is thus able to avoid unsightly enlargement of the external auditory meatus.

Dr. GOMPERTZ showed a patient in whom he had carried out Zaufal's radical operation with Körner's plastic one for *Cholesteatoma of the Right Middle Ear.*

The patient was one in which recurrence had taken place in spite of conservative treatment. After remaining well for nearly two years, at the end of April, 1895, he commenced to suffer with vertigo and headache. In the neighbourhood of the small perforation in the postero-superior quadrant there was only a delicate cholesteatomatous pellicle. Within the next few days, along with increase of the discomfort, there was swelling of the external meatus; then outgrowth of granulations projecting from the perforation. At first the patient refused operation, only consenting when the polypi completely filled the meatus.

On June 8th these were removed and the mastoid opened by Zaufal's method. In cutting Körner's flap the concha was not encroached upon, yet it was sufficiently long. On June 14th the wound had healed by first intention. Forty-five days after the operation the whole new cavity was dry and covered with a delicate epidermis.

Prof. URBANTSCHITSCH complimented Dr. Gompertz on his good result.

Dr. KAUFMANN. *A Case of Ménière's Disease.*

The patient, a woman, aged thirty-one, under the care of Prof. Gruber, until a recent attack of influenza had always been healthy.

https://doi.org/10.1017/S1755146300163632 Published online by Cambridge University Press

On the evening of the 6th August she hurried into the theatre, and while still hot drank some water. On her way home she observed a noise in her ear, and woke suddenly in the middle of the night with violent giddiness, vomiting, intense noise, and complete deafness in the left ear; the menses, which were then at their second day, stopped. Vomiting was repeated during the next three days at least six or eight times a day, and the vertigo was so severe that for twelve days the patient was unable to leave her bed. The deafness remained unaltered. The menses did not reappear until after a lapse of double the usual period. There was no sign of other disease or hysteria; the appearance of both membranes was normal, also the Eustachian tubes. In the left ear there was complete deafness for watch and speech; only deep-toned tuning-forks were heard by air conduction. Weber was heard loudest in the right ear, and the vertigo was intermittent, especially in the dark, and was very distinct when she moved with her eyes shut. All treatment up to the present had been without result; now a course of pilocarpin had been commenced.

Prof. POLITZER remarked that the case was very similar to the first one observed by Ménière.

Prof. GRUBER stated that the cases of pronounced Ménière's disease observed by him were usually bilateral, especially those which came on suddenly with vertigo and deafness. Unilateral cases like this one were rare. The tuning-fork investigations had little value in these diseases, and the establishment of a certain diagnosis by means of the tuning-fork alone was not possible. He had never seen any improvement take place in cases in which there was an effusion of blood into the labyrinth.

Dr. URBANTSCHITSCH mentioned a very similar case in his private practice of unilateral deafness, and he said the causes of sudden deafness were not to be sought for alone in labyrinthine hæmorrhage, but also in central changes.

Prof. POLITZER looked upon Dr. Kaufmann's case as a disease of the labyrinth, and not nervous deafness; he attached considerable importance to the investigation with tuning-forks, especially with regard to the reaction for deep tones in conjunction with the other symptoms.

Dr. ALT mentioned a case of leuchæmia in which Ménière's symptoms appeared suddenly.

Dr. GOMPERTZ mentioned that such symptoms sometimes depended upon embolism due to heart disease.

Prof. GRUBER. *A Case of Carcinoma of the Ear.*

The patient, aged sixty, stated that he had suffered since infancy with left otorrhœa, and for three months with facial paralysis, and for the last six weeks with otalgia. On examination there was found complete left-sided facial paralysis; the left meatus filled with gangrenous polypi. The mastoid process was externally normal. There was deafness for the watch and the voice. Weber was negative. A diagnosis was made of chronic suppurative median otitis, involving the mastoid process, and the radical operation with plastic treatment of the membranous meatus was carried out. The mastoid process was found sclerosed, and no antrum

https://doi.org/10.1017/S1755146300163632 Published online by Cambridge University Press

was found ; the tympanic cavity was completely filled with thick granulations. The subsequent progress was without fever, but there was a very rapid re-growth of the granulation masses, which soon projected from the large wound.

In the middle of September there was dense infiltration of the margin of the wound, and it was clear that the case was one of a malignant new growth. Microscopical investigation confirmed the diagnosis of carcinoma, which very probably had its origin in the mucous membrane of the middle ear. At the present time the meatus and the wound are filled with masses of carcinoma, in the form of an ulcerated tumour the size of an egg, above the level of the mastoid. On the posterior surface of the lobule is a metastatic growth of the size of a walnut. There is infiltration around the wound to the thickness of a finger ; the glands are affected as far as the supra-clavicular fossa. There are no other metastases perceptible. The facial paralysis and deafness continue, the patient has lost flesh, and there is some cachexia. Recently he had seen three similar cases, which were all operated on because the nature of the process was not recognized, and he warned his hearers against carrying out operations when there was the slightest suspicion of a malignant new growth being present.

Demonstration of a Preparation from a Case of Acute Median Otitis without Perforation, with Pyæmia resulting from Phlebitis in the Bulb of the Jugular Vein.

The preparation was taken from a patient, aged nineteen, in the maternity wards, who on the 19th of September, 1895, was examined in Prof. Gruber's clinic for left acute median otitis of two days' duration. Paracentesis of the tympanum was performed, and the patient was ordered to return next day. Next day high fever came on, and on the 21st the patient had a normal labour. The fever continued. There were severe general symptoms, pains in the joints, restlessness, delirium, and, on the 23rd, death. The *post-mortem* diagnosis by Prof. Kolisko was as follows : "Pyosepticæmia ex thrombo-phlebitide venæ jugularis in bulbo jugulari ossis temporalis sin. post otitidem mediam acutam sinistr. cum abscesso metastatico lobi inferior. pulmon. sinistr. et pleuritide sinistr. cum phlegmone metastatica musculorum anti-brachii utriusque et suvæ (sic) dextr., cum tumore lienis acuto, degeneratione parenchymatosa organorum nec non cum endometritide metastatica post partum."

Dr. FERDINAND ALT. *A Test for the Determination of an Obstruction to the Conduction of Sound.*

This was to take the place of Weber's experiment, or to support it, and is as follows : When one sings a note with the mouth closed—or, to be more exact, when one hums a note—and closes one ear with the finger, the tone is heard only in the closed ear, and this is the same whether the tone is deep or high, loud or soft. Similarly in a patient in whom Weber's test is lateralized in one ear, a sound uttered with closed mouth is heard only in the ear in which the Weber tone is lateralized. The experiment gives a positive result in all cases in which Weber is lateralized in one ear, and is only useless in cases in which there is

https://doi.org/10.1017/S1755146300163632 Published online by Cambridge University Press

unilateral destruction of the membrane or very large perforation. In these the sound-waves can escape more easily outwards than towards the labyrinth. If, on the other hand, there is a small perforation in the other part of the membrane—as, for example, in Shrapnel's membrane—through which the sound-waves cannot easily escape, the test gives a prompt result. The author finds that this gives him clearer diagnostic evidence in cases of unilateral labyrinthine disease.

Prof. POLITZER found that his tuning-fork test in cases of swelling of the lining of the Eustachian tube was very practical, and thought that Alt's test might be very useful in such cases. He doubted whether in a normally closed tube a column of air could enter into sympathetic vibrations.

Dr. ALT replied that the test was found practical in swelling of the tube because the bone-conduction came into play, but it was not so prompt as under other circumstances. He thought, further, that during singing with closed mouth the muscles of the tube were stretched, and the tube, therefore, rendered more patent.

Prof. GRUBER had tried the experiment, and found that it gave a clearer result even in cases of destruction of the membrane. This test was always valuable when a tuning-fork was not at hand in order to take the place of Weber's test.

Meeting, November 26th, 1895.

President—Prof. GRUBER.

Prof. GRUBER. *The "Late Stitch" after Artificial Opening of the Mastoid.*

The patient was a man, aged fifty-five, in whose mastoid an artificial opening had been made on the 21st October, 1895. There was a bony cavity extending over the whole length of the mastoid process, about three centimètres in length, one and a half in width, and one in depth, with smooth walls, and filled with pus and soft granulations which readily bled. After-treatment was carried on in the usual way up till the 31st of the same month, during which time the patient was free from pyrexia or any other contra-indicating symptom, when Prof. Gruber practised the "late stitch," bringing together the edges of the wound by means of sutures, and leaving in the lower angle a strip of iodoform gauze. There was no sign of reaction or accumulation of pus, and the strip of gauze was soon removed. On the 8th November the stitches were extracted, and up to the present time—twenty-six days—there has not been the slightest unfavourable symptom. Prof. Gruber remarked that he had carried out this method in a considerable number of cases, both in his clinic and elsewhere, with the best results, and in no single case were there any undesirable effects. The "late stitch" shortens considerably the duration of the treatment.

https://doi.org/10.1017/S1755146300163632 Published online by Cambridge University Press

Prof. GRUBER. *An Abnormal Opening in the Squamous Portion of the Temporal Bone.*

In an otherwise normally-developed adult temporal there was found, about five millimètres above the upper margin of the zygomatic process and one centimètre in front of the external auditory meatus, a round hole, about four millimètres in diameter, with a smooth margin, through which the cranial cavity communicated with the outer ear. Looked at from the cranial cavity, this hole appeared to be the perforated floor of an excavation whose diameter was about double that of the orifice seen from the outside. The walls of this cavity were quite smooth, and it was found to lie in an angle constituted by the bifurcation of the groove for the middle meningeal artery. It appeared as if at this place there had been a dilatation (aneurism) of the middle meningeal, which, bit by bit, had eaten into the bone. It was obvious that this hole was not an artificial product, as its walls were perfectly smooth. It would not be impossible for aneurisms in this place to give rise to those objectively perceptible noises which can be heard in contact with the skull, and which are isochronous with the pulse. These holes in the temporal bone probably possess pathological aspects of the greatest importance.

Prof. GRUBER. *An Abnormal Fissure in the Roof of the Tympanic Cavity.*

The preparation showed, at the spot where the tegmen tympani is inserted into the petrous bone, a pronounced fissure, about one centimètre in length, through which the tympanum communicated with the cranial cavity. Through it, as the condition of the dura mater showed, a previous chronic suppurative inflammation had extended from the tympanum to the meninges, and given rise to a chronic circumscribed pachy-meningitis. In the newborn such a fissure was frequently observed between the tegmen tympani and the petrous bone, and the one he had just shown could be looked upon as a defect in development.

Prof. POLITZER. *A Demonstration of Pathological and Anatomical Preparations.*

1. *A Preparation showing a Defect in the Posterior Segment of the Tympanic Membrane and Complete Calcification of the Antro-Inferior Remnant of the Membrane.* This was the result of middle-ear suppuration. The mucous membrane of the posterior wall of the tympanum was much thickened and very irregular, and on the promontory there was a calcareous deposit of the size of a small lentil. The other interesting points were an extensive dentate calcification of the lining of the mastoid antrum and calcification of the tendon of the tensor tympani.

2. *A Circumscribed Calcareous Deposit* in the mucous membrane on the promontory below the fenestra ovalis.

3. *Extensive Atrophy and In-drawing of the Membrane.* The central atrophic part of the membrane was very distinct from the thickened peripheral parts.

4. Preparation showing *an abnormally wide Fossa Jugularis*, seen from the under surface of the temporal bone. There was an irregular

https://doi.org/10.1017/S1755146300163632 Published online by Cambridge University Press

dehiscence three millimetres in size, through which the jugular fossa communicated immediately with the internal auditory meatus. In another preparation in which the jugular fossa was enlarged so as to reach the upper surface of the petrous bone, there was a dentate dehiscence on the posterior surface of that bone.

Prof. POLITZER suggested that in cases of dehiscence between the jugular fossa and the auditory meatus subjective noises might be occasioned by a swelling of the jugular vein and pressure on the auditory nerve. *Dundas Grant* (*Trans.*).

DUTCH LARYNGOLOGICAL, RHINOLOGICAL, AND OTOLOGICAL SOCIETY, ARNHEIM.

Third Annual Meeting, June 9th, 1895. ("Monatschrift für Ohrenheilkunde.")

President—Prof. GUYE.

Dr. J. H. REINTJES. *Case from which a Growth had been Removed rom the Entrance of the Larynx.*

A boy aged ten had a swelling of the right side of the face in May, 1894, which gradually subsided by August. In July his breathing became very noisy, and in November he suffered from increasing dyspnœa. He had no other discomfort, but had wasted considerably. When seen on November 6th, 1894, there was no glandular enlargement. On depressing the posterior part of the tongue a red swelling was seen occupying the whole of the lower half of the pharynx. It consisted of two lobes. The first occupied the space between the epiglottis and the posterior wall, and extended over the left ary-epiglottic fold. By laryngoscopy the other lobe could be seen pressing downwards into the pharynx. During respiration, which was very difficult, the pale but otherwise normal epiglottis rose to a slight extent from off the tumour. The latter, which had a smooth surface, was of a dull red colour, immobile, soft, and readily bleeding on palpation. Considering the short duration of dysphagia, as also of the relatively slight interference with respiration, its deep origin could be eliminated, and it seemed pretty certain that it arose from the right margin of the epiglottis or from the ary-epiglottic fold. The writer took it for a sarcoma. On the 12th November an operation was performed with preliminary tracheotomy and insertion of Trendelenburg's canula. Under anæsthesia the palpation was much easier. The tumour arose from the right ary-epiglottic fold with a narrow base. An attempt to pass a snare round it was unsuccessful. By means of a forceps a portion of it could be removed, and a hook came through the tissue. On account of the dangerously severe hæmorrhage the author avoided removal of the growth by bits and determined to practise subhyoid pharyngotomy. This being done, a galvano-caustic snare was passed round the tumour, which was thereby removed. The cautery was also applied to the site of the

https://doi.org/10.1017/S1755146300163632 Published online by Cambridge University Press